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VOLUME IV [illegible] NUMBER 1

The Elementary School Teacher

SEPTEMBER, 1903

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VOLUME IV

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The Faculty of the University of Chicago School of Education

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CONTENTS FOR SEPTEMBER, 1903

ELEMENTARY SCIENCE TEACHING IN THE LABORATORY SCHOOL. II — KATHERINE B. CAMP — 1

ELEMENTARY ART TEACHING IN THE LABORATORY SCHOOL. II — LILLIAN S. CUSHMAN — 9

ELEMENTARY MUSIC TEACHING IN THE LABORATORY SCHOOL. II — MAY ROOT KERN — 16

ELEMENTARY HISTORY TEACHING IN THE LABORATORY SCHOOL. II — LAURA L. RUNYON — 34

THE BEGINNING OF FORMAL LANGUAGE WORK - - - LIDA B. McMURRY — 51

NOTES ON FOREIGN LANGUAGES IN THE ELEMENTARY SCHOOL — PAUL O. KERN — 61

BOOKS RECEIVED - - - - - - - - - - - - - - - - - 64

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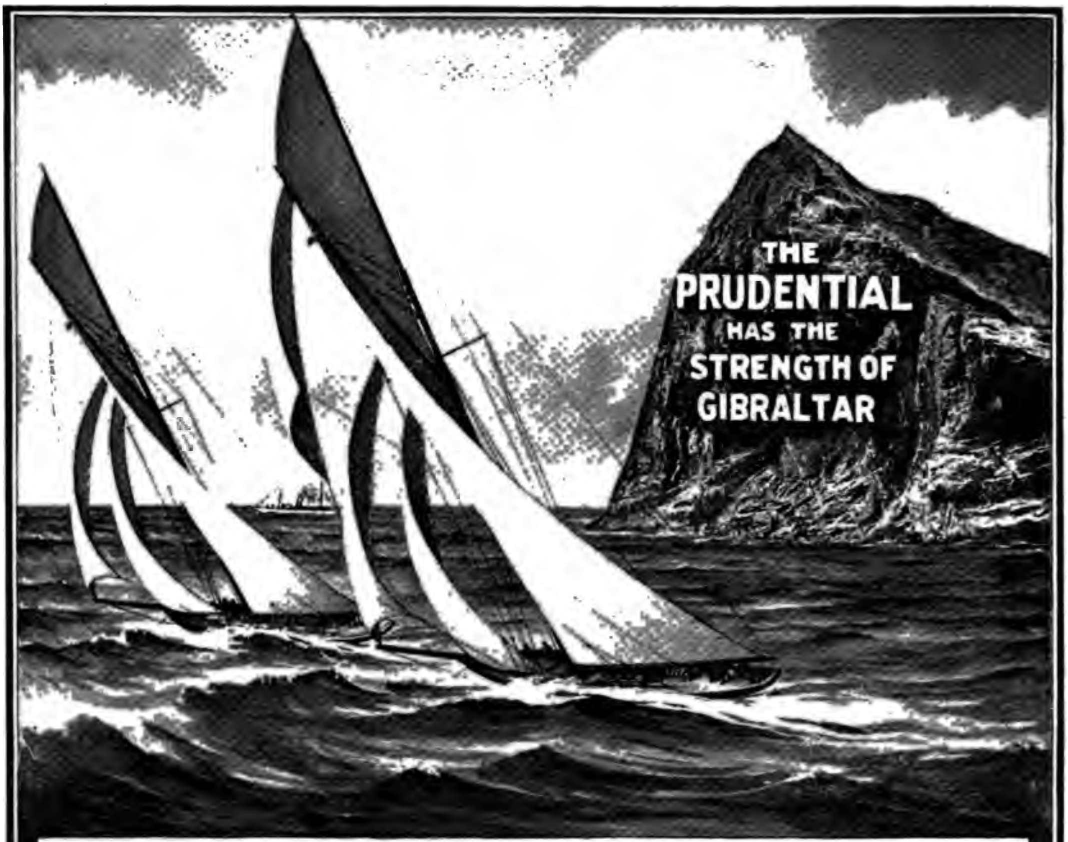

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VOLUME IV NUMBER I

THE ELEMENTARY SCHOOL TEACHER

SEPTEMBER, 1903

ELEMENTARY SCIENCE TEACHING IN THE LABORATORY SCHOOL.

II.

STARTING from the principle of modern psychology that unity of mental operation is found in response through action, not in the sensation or ideas preceding the action, we can proceed to the corollary that the children's activities represent the concrete side of education and furnish a point of attack. Sensation represents the stimulus to the act, thought the process of making the proper response. From the point of view of this psychological principle the problem of elementary science, then, is: What *activities* furnish opportunities to be used in the growth of scientific method and concepts?

It is a common observation that the child's activities vary in different periods of development,[1] and the following rough classification of his attitude in them might be made: During the first period, from four to six, they are direct and social. He undertakes no long processes with remote ends. The next three years, from six to nine or ten, belong partly in the period of direct activity and partly in a second period, from nine to about twelve or thirteen, where immediate ends are no longer demanded, and where the social interest, although still dominant, begins to yield in force to the dawning intellectual interest. At about twelve or thirteen we come to the age where the beginning of interest in abstraction and formulation marks the beginning of the so-called secondary period of education, when the work can approach in method a scientific ideal.

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[1] See *Elementary School Record,* article on the Psychology of Occupations.

The above classification will determine the choice of subject-matter from the side of the child's motive, while the scientific generalizations of the teacher play but a secondary part; hence any illustration of the way in which these concepts actually work in experience is secondary to, and must be deferred until after, the consideration of the way in which the child grows in particular scientific ideas. For example, the concept of the conservation of mass and of energy is always implicitly present in the teacher's mind and is one factor in the selection of the subject-matter, while it may be years before the child will be able to appreciate the intellectual value of such a concept, even in part. The following is a brief outline of possible selections of subject-matter corresponding with the periods of development:

During the first year of the first school period (from four to six), in the household and neighborhood occupations chosen as the subject-matter, the particular processes—*e. g.*, cooking, sewing and weaving—are carried out largely through imitation. In the modern social occupation chosen for the six-year-old child the typical ones which furnish food, shelter, and clothing are selected, and here an initiation of conditions or of experiment can be made only in those processes which deal with very familiar material, such as cooking, simple constructive work, and the housekeeping of the class-room or kitchen. The next year, in the summary of primitive history, through occupations from the side of invention and discovery, through imitation is introduced what might be legitimately called experimentation, in cooking, in constructive work, and in carrying on the occupation developed.

The next two years, from eight to nine, might be selected as belonging peculiarly to a transitional, intermediate period. The problem of selection here, as in the first stage, is still social rather than scientific. During the first year of this transition period more initiation and experimentation on the part of the child is demanded by the method of treating social material used. The occupations are of definite peoples, in actual localities, and have assumed more limited and specialized form. The processes used should be distinctly experimental, the imitation indirect, through memory of past experience or through relation of the results of others' experience, thus involving actual manipulation by the child of the conditions involved. In this year also, without distraction or inhibition of activity, he can formulate simple conditions necessary in the initiation of any experiment, and also consciously apply the result of this experiment in any process he is carrying on, such as spinning, cooking, or constructive work of any kind. The method, however, in which any selected process is carried out is more experimental, involving not only more initiation on the part of the child during experimentation, but also carrying over of the results of experimentation and applying them as rules, principles, or laws to new material.[2]

The particular processes selected would depend entirely on the child and the teacher, although with the former's increasing experience and ability there no longer exists the urgent need for the background of a common experience which is one of the strong factors influencing the choice of material in the beginning of school life. Here the personal element may come in through the life of the people concerned in carrying on the occupation or the process studied. This factor limits the choice to some industry or process either actually going on in the child's immediate neighborhood, or carried on by people about whom he is studying in the more distinctively social or historical work of the school.

As a matter of convenience, during the latter year of this transition stage it is possible to take up what might seem to involve a decided differentiation in studies. For instance, in studying the topography of any locality with which he is concerned, instead of gathering up all the facts as springing from the lives of the people of this locality, he is able, without feeling any break in continuity, to work up the resources of the region under classified heads; for example, to take up the problem of what routes would be used for transportation to neighboring countries, and to work out these routes from the topography of the map; or, being given the mineral resources of the region, to work out the industries which spring up as a consequence of these resources. In the same way, in his experimental work, he is able to take some process, such as the making of alloy, like pewter, and to carry over inductively any principle he has discovered and apply it in the making of a new alloy involving the use of new metals. The processes used can be longer, more varied, and initiated by the child from the nature of the conditions and material at hand, through the use of experiments to bring out the need for each step. Here also experiments can be used to separate out one factor of a complicated process as an illustration of the principle of that process; for example, experiments can be given illustrating the relation of chlorophyl to the making of starch, as a part of the plant's life-process.

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[2] See Miss Harmer's articles on "Cooking" and "Textiles" in the June number of the Elementary School Teacher.

In the first year of the second elementary period, at the age of ten, the children seem ready to work out experimentally complicated processes in detail. This method of working out the operations used in an industry not only gives some idea of the part which experimentation actually plays in manufacturing, but also gives the beginning of the scientifico-sociological attitude through the concrete formulation of the difficulties to be met in any manufacturing process—the idea of the method of procedure in obtaining crude material, including storage and transportation; the processès gone through in the preparation of that material, involving perhaps the combination of resources from different sections of the country; and finally the placing of the product on the market, involving advertisement, and the manufacturer's relations to the middleman, the wholesale merchant, and the retail merchant.

During the second year of this second period, at eleven and twelve, children are not only ready for the continuation of complicated processes worked out in detail, in connection with some occupation or industry, but are able to work out concretely simple laws, such as the law of the lever, and apply them subsequently in the making of simple machines and apparatus. They begin to comprehend the need for such units as are involved in the measurement of work; that is, of course, such units as do not involve the idea of acceleration.

Both because the problem itself becomes more complicated and because the field of choice of material becomes exceedingly wide, any definiteness of suggestion is impossible either for these last two years of the elementary period or for the beginning of the secondary period. The beginning of this so-called secondary period of education is marked by the beginning of interest in abstraction and formulations, and hence the beginning of work which can approach in method and subject-matter the scientific ideal. Although oportunities for observation and experimentation here have been much more limited, results would seem to guarantee the general conclusion that, while in this period the child possesses a dawning interest in abstraction, yet it is a mistake to approach whatever portion of the scientific field may be selected from the side of formulation. It is still necessary that all possible connection be made through the selection of material and processes constantly present in the child's own life, and to use these as points of contact with the general ideas which he is now able to manipulate.

A general division of observational and experimental work, from an adult point of view, has been made in nature-study. It would seem that no such distinction exists during the first period of direct activity. Observation and experimentation are the two sides of one process mutually interacting. The child shows the beginning of an observation akin to adult observation, in which the reflective and motor impulses are held in abeyance in periods of quiescent attention to new objects and phenomena. This attention, if no interruption occurs, inevitably seems to lead to action or experimentation with the child. The child's interest in experimentation is, of course, only one form of activity, but the distinction here made, for our present purpose, between the experimentation called observation and the distinctly active experimentation is that in the first the child is a more or less quiescent spectator of natural processes, while in the second he more or less controls and initiates conditions. These two attitudes, of course, overlap until, in the latter half of the elementary period, the child reaches the stage of interest in his own formulation of causes, and unconsciously experiments, rushes in to effect changes himself in what is going on, or actively investigates hidden causes.

To illustrate in brief the way in which the general concept in the teacher's mind may serve as a unifying principle in the choice of work, as contributing toward the child's ultimate formulation of a scientific concept, the idea of force and of matter as controlled through measurement might be taken. In the very earliest use of weights and measures the weights must be used by the child as a way of determining quantity through the pull of the earth upon matter, or gravitation. The scales are a device for finding equal pulls. The necessity for the use of this kind of measure which will appeal to the child could be found in many processes, but may be illustrated by the use made of it in cooking. One of the first operations which the child carries on in the cooking of cereals necessitates the use of flaked rice, which combines with an equal bulk of water, as the unit which determines the amount of water to be used with each bulkier or more compact cereal. This kind of comparison of quantity as obtained by measurement and mass as measured by the pull of the earth can enter into almost any process which he carries on during the first two years. By the time he has entered the transition period he is ready to formulate a rational system of weights and measures either in connection with the people who develop such a system or with the modern use of the metric system. The ways by which this constant reference to the force of gravity can be made more and more explicit in the child's mind are numerous and will present themselves to everyone. As referred to above, when his work on the simple machines begins, he is ready to use the notion of measuring work by units of weight carried through units of space, to understand the proof of the earth's motion by the swing of the pendulum, and in many other ways to interpret the action of this ever-acting gravitational force on animals and plants, or as used in the barometer and in water-power.

Among other topics which can be taken up in this spiral fashion would be the part that plants play in rendering the energy from the sun available for animals. In the first period this topic would inevitably be treated, though not consciously formulated, in connection with all the work in which the children are engaged. The third year's work would especially illustrate, in the life they study, the present dependence of man and domestic animals upon the vegetable world. The next or fourth year would add something to the way in which man has developed these resourses of the earth. The fifth year would add very striking and diverse types of such dependence, showing in the Esquimos a type almost independent of vegetable life, and in the tropics life reduced to its lowest terms of absolute dependence upon vegetable food. The sixth year would begin the first conscious work, when the problem of plant food, and, in the cooking, the ways to make it available, are considered. This would involve the classification of the different forms in which this food is stored and made use of by man. In the seventh year there would be taken up definitely the relation of the storing of this food by the plant to the source of energy, the sun's light. Ideally, in the year following, the eighth, the difference in function in plant and animal, in nutrition, would be taken as a conscious problem; and with the work in mechanics some idea would be gained of the fact that the different forms of energy are all measurable, and that the relation of the human body to its food is roughly analogous to the dependence of a machine upon its fuel.

Another type of general ideas which becomes explicit much earlier than those just used is represented by the concept of the earth as a whole. This naturally grows up through the incidental contact of the child with peoples and countries, and also in the repeated use made of the seasons of day and night change. The ever-present interest in the world as related to other worlds than ours shows itself as early as seven, and grows more definite at eleven or twelve, when the child is ready for formulation ot ideas of this type.

As we watch the developing child, we find this continual interplay of the activity of observation, of experimentation, reflection, and application in a new activity, growing more and more definite and controlled. The first generalizations of the child are concrete in form. He inclines to make no formulation of results in terms of the processes that lead up to them, but to pass over into a new activity which involves the principle or idea obtained in the previous activities or experimentation, and which would have been impossible save for the presence in their minds of the conclusion arrived at from the preliminary experience. As the end of the activity becomes more remote, the consciousness of the steps to that end also grows, until we finally reach the more conscious swinging of the mind from observation and experiment to end in view—to reflection upon results, to recognition of principle and law, and again to renewed observation and experiment, and extension to new phenomena and experiments of the old principle passing into a new, so developing the controlled mind we call scientific.

KATHERINE B. CAMP.

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from the ground. The branches are extended horizontally from the trunk in regular and symmetrical order. The child's first need is to acquire a large number of generalized images. Then he must be encouraged to use them. As he uses them, the teacher must lead him to make them more specific and individualized. The danger of uncontrolled self-expression was mentioned. If, as in case of the tree, this first crude symbol is repeatedly expressed, a false and conventional idea will become fixed in the mind. It is important that the first concept should at once be enlarged by a more definite knowledge, not only of the appearance of the tree itself, but of its relation to the landscape. At six the individual will be able to express the distinction between the form of a poplar and of an oak. He will also make the discovery that the tree which is near to him is larger than the one more distant. To bring these facts to consciousness, and to give the power to express them, are a part of what may be termed the beginnings of technical training. While impressions must be corrected, on the other hand there is not sufficient interest in the formal side of things to draw a tree just for the sake of learning how. There is always some ulterior motive.

To gain freedom of expression, it is necessary to adopt materials which yield most readily to direction. Colored chalk, charcoal, and water color are most commonly and successfully employed for this purpose. Beyond the kindergarten clay has been used but little, and tradition seems to confine it to the production of subjects much too trivial for the child of eight or nine. Plastic art is one of the universal forms of expression. The potter's craft has its beginnings in primitive conditions, and its development shows the evolutionary stages of the race. It therefore has a value as handcraft, as reinforcement of history, and as an æsthetic expression. While, on the one hand, the sculptor's art serves man's material needs, on the other, it expresses his spiritual emotion. Because of this universality it seems to contain processes which will satisfy the growing child. In my experience it is certain that he can in no other medium reach the same standard of technique as in clay. Its concreteness serves to give definite ideas to the vague mind and to wake up the sleepy one. It responds readily to various impulses. It is also capable of prolonged and painstaking manipulation. During one year it was used in groups ranging from six to twelve years of age, and the reaction of each class was noted. In every case the work began with creative effort. The subjects developed largely from the other studies of the group. Attention and interest were sustained, though many of the first productions required about six hours, distributed through a period of three weeks. The technique was about two years in advance of anything produced in the "flat."

Methods must be adjusted to the three stages of development —motor, visual, æsthetic. Of course, the aim of all instruction is to hasten the transition from the lower to the higher plane of consciousness, but it can be done only by working out from the known to the unknown. Early instruction must be formulated on the motor basis. It seems best to begin with the concrete medium, clay. This calls into use the natural method of gaining experience by a sense of touch. In developing a lesson in form the six-year-old child with eyes closed feels of the object, and notes its points of conformity to and difference from the type. Characteristics are intensified by contrast. It is only in this way that the type solids are used. Interests are then special rather than general. In representing fruits and vegetables of the farm, the farm animals, the farmer himself—subjects in which school life have created an interest, and which the youthful mind has individualized—he learns as much about the type-forms indirectly as if he were studying them directly. The advantage of this method is that he is gaining an art-experience rather than mastering a mechanical exercise. As soon as he can express the form in clay, he learns to translate from the round into the "flat." There is continual alternation between clay and color and charcoal. One of the first technical difficulties is that the child does not know how to express on the flat surface the sensations gained by touch. Motor exercises, such as repeating in the air the motion made in feeling of the surface of the object, are a help in making the co-ordination. With older students such an exercise, which in itself may serve to create a motor image, intensifies the visual impression. Clay is used in the first figure work. A wire frame is given the child, and, after dramatizing the action which he intends to represent, he bends the wires into the same position, and they are nailed to a board. In accordance with this method the six-year-old classes have represented the farmer sowing, carrying the grain to the mill, etc. It is an easy matter in the next step to draw the frame on the board and "build the clay" over it in the form of a mass of chalk. This latter is practically the old method of making stick figures, and seems especially adapted to the motor period.

A motor experience such as walking from tree to tree is one of the best methods of developing space concepts of landscape. To correct the tendency to make objects in the foreground very small, so that pictures look like maps or bird's-eye views, a motor experiment is necessary. In such an experiment performed out of doors a child stands directly in front of the class, and attention is called to the amount of distance which he covers up. As he walks away, they realize that he seems to "fold up." After establishing the fact that on level ground the observer is as tall as the horizon, there is a motor basis for comparison. The house in the foreground must be large enough to enter. The tree must be tall enough to climb. These experiments are the means of correcting the original expression, and, as development progresses, they constitute an ever-widening technical interval.

The number of visual interests is greatly increased by utilizing the play spirit. Visualizing exercises in the form of memory games are helpful. Some of these games involve the retention of a succession of form and color images. When objects are placed before the members of a class, they will look once, and then will draw from the first impression. The gain in the memory work consists in obtaining a momentary concentration. All children show an early tendency to pictorial expression, but unless the impulse is carefully encouraged it disappears. This is undoubtedly due to the fact that the technical training has not kept pace with the general mental development. This was the cause of the disgust for art manifested by the older students during the

There is no reason why this should not begin even in the kindergarten. The habit of using one material in imitation of another, and materials which are so flimsy that they will not serve the purpose for which they are intended, begins the establishment of a false standard, which reaches its logical culmination in the tawdry imitations of the modern department store. It was a pleasure to find in a recent exhibit specimens of kindergarten furniture made out of cigar-box wood, instead of the traditional cardboard and paper. These pieces had a substantial appearance and a look of reality that must have given satisfaction even to an infant mind. When a child reaches an intellectual development where he can manipulate a Navajo loom, he can certainly be led to realize as a concrete problem that it is necessary that within a certain space there should be a principal color-thought, and that in order to gain this end one set of colors must be subordinated to another. To allow him to exercise a savage taste, without any effort to bring higher standards to bear upon him, would be equally as criminal as to make him draw abstract designs when he is not ready for them.

Aesthetic growth must proceed through the reaction in expression and through the influence of art masterpieces. These are of value in two ways: first, they become an expression of the child himself by presenting an idealization of his own emotions; secondly, they furnish technical standards. It is only that which corresponds to or idealizes the world we see or know which is beautiful to us. The corollary of Browning's oft-quoted lines is that we do not love seeing painted things that do not awake within ourselves the echo of any corresponding experience. When we use the term "experience," of course the imagination must be included as one of its sources. Selection must be made from those works which the child can interpret. It would seem natural to find these among the works of races of corresponding development. The simple technique and dramatic action of Egyptian and Assyrian sculpture always awaken a response from children. The designs of primitive races are vibrant with strong and beautiful color. Such art-expressions as these should be

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music work of the school. From the kindergarten to
class, carefully chosen songs with piano accompan
taught to the children by rote. As far as possible.
choice is noted, and such songs are selected as sha
appeal to the genius of the group. At first it seeme
for regret that a collection of songs suited to our re
could not be found, that each child in learning a
might be having added practice in sight-reading. It
however, that in singing from the printed page there
restrictions in bodily poise which reflect upon the v
quality of tone, while much of the ear-training and n
connected with the rote song is lost. The piano acco
is valuable as a cultural means. Its presence culti
pendence in holding the melody (incidentally a prep
part singing), while it awakens a sense for correct
progression. Songs without a harmonic backgroun
stimulating and inspiring quality which children b
primary grades should have. The three-part song
ment is complete and satisfactory without accompa
Mendelssohn's "Lift Thine Eyes"—is also, of cou
educative.

Songs learned in group work are sung in choru
which occurs each week for one half-hour period.
[illegible] the children from six t
[illegible] fourteen years f
[illegible] has been divided into t
[illegible] each division.
[illegible] the kindergarten

words and music was first presented to the children, they regarded it as a daring enterprise. The first song, "Hurrah for Thanksgiving and the Football Game," was written in a spirit of frolic. About forty songs have been completed by the children since this first, and the work is now regarded by them as being more serious than any other phase. The formal work included in the notation limits the production, and two songs a year are usually as much as a group asks to write.

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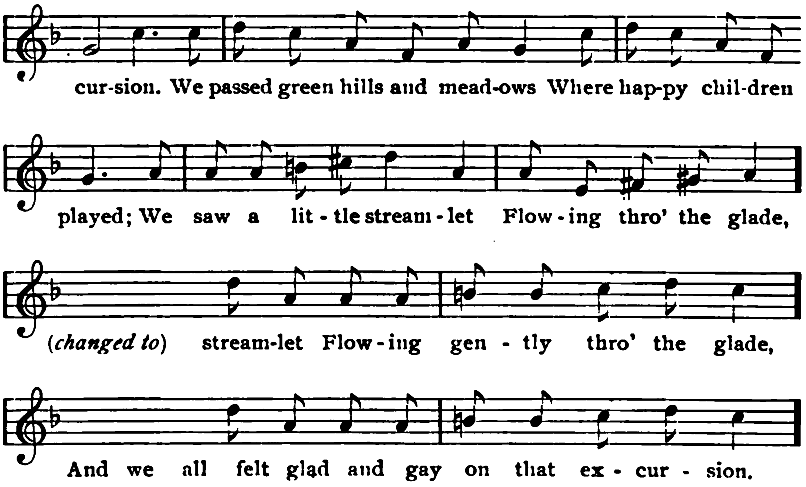
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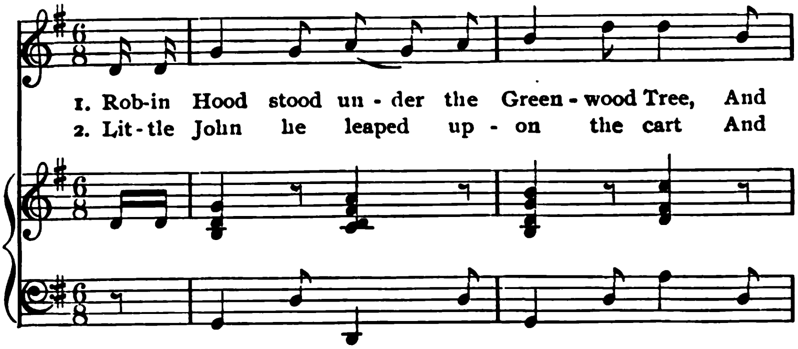
THE RESCUE OF WILL STUTELY.

Words and melody by 10 yr. children.


1. Rob-in Hood stood un-der the Green-wood Tree, And
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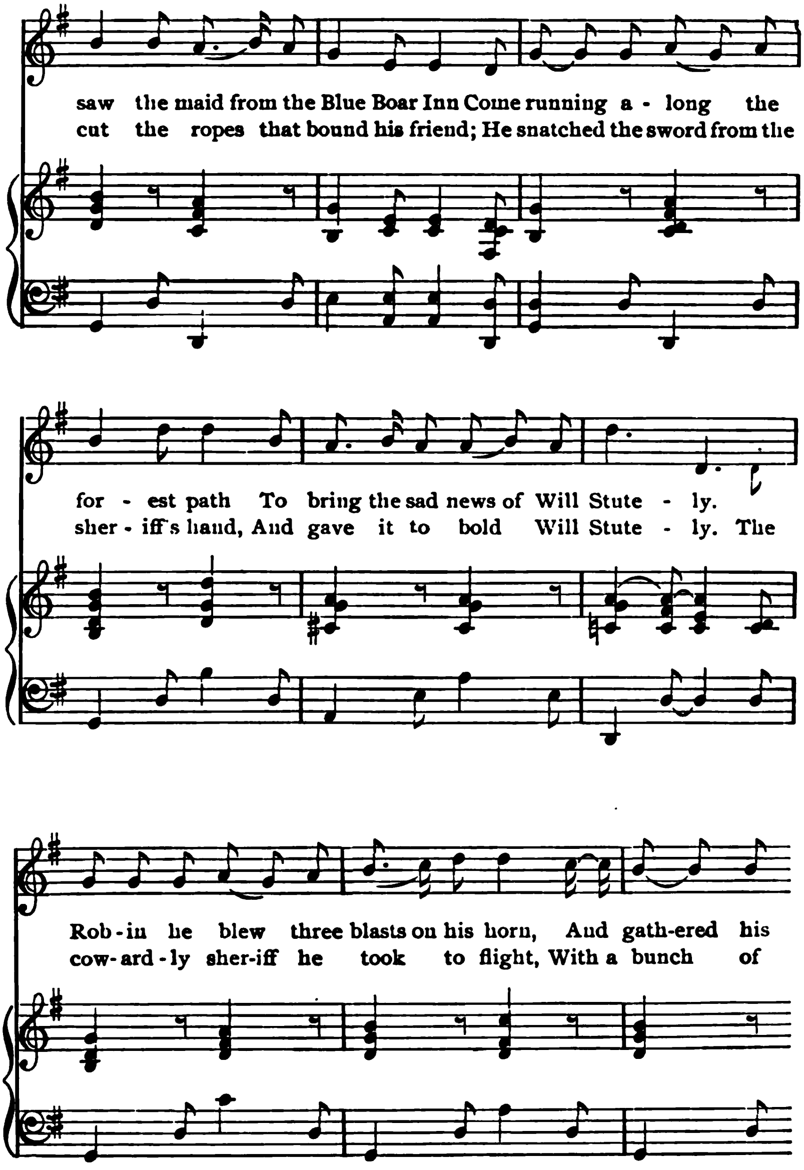
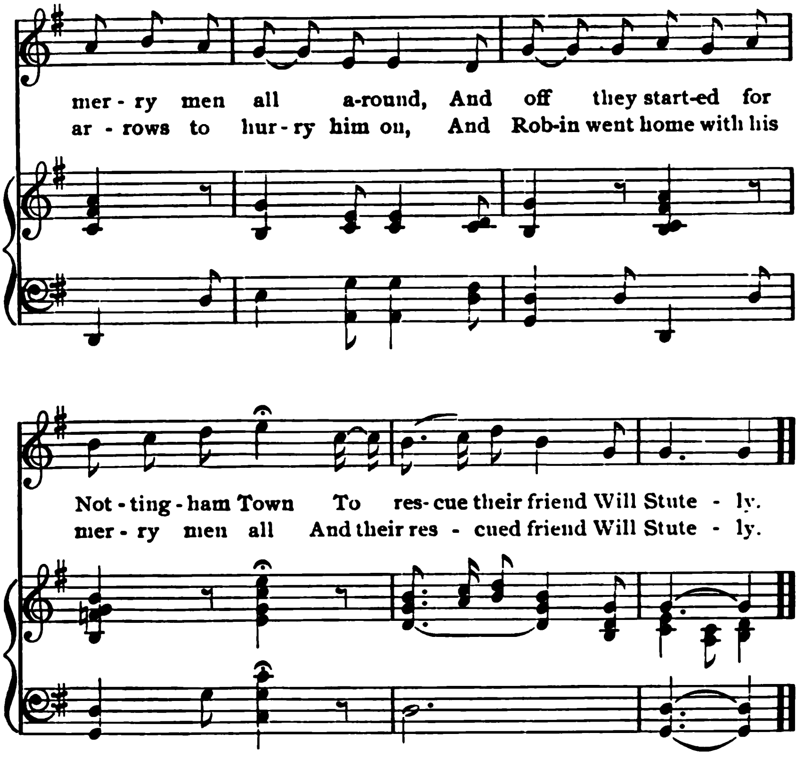

saw the maid from the Blue Boar Inn Come running a - long the
cut the ropes that bound his friend; He snatched the sword from the
for - est path To bring the sad news of Will Stute - ly.
sher - iff's hand, And gave it to bold Will Stute - ly. The
Rob - in he blew three blasts on his horn, And gath-ered his
cow-ard - ly sher-iff he took to flight, With a bunch of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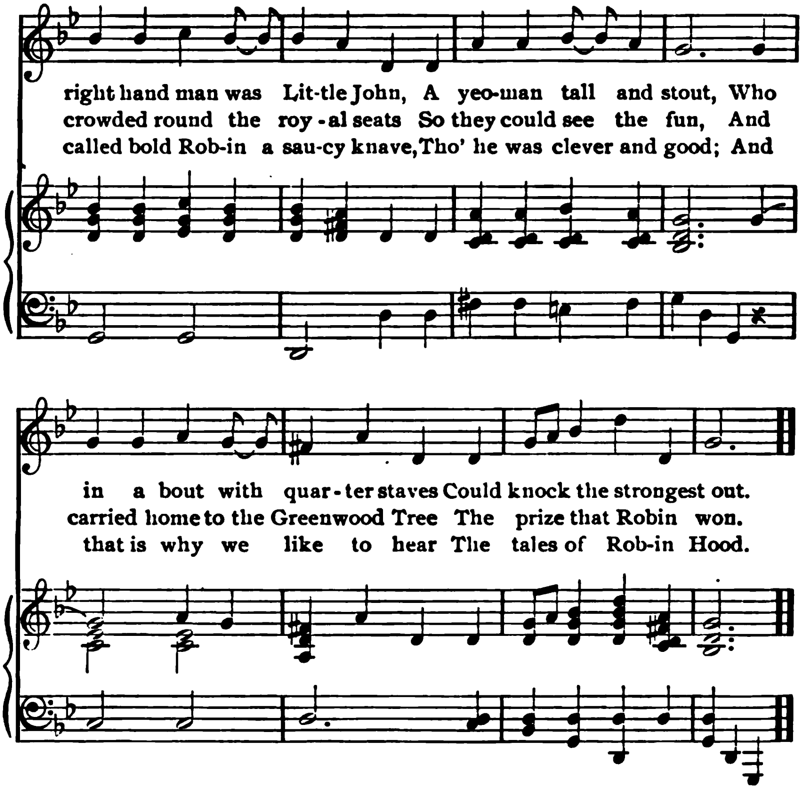
right hand man was Lit-tle John, A yeo-man tall and stout, Who
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There is no reason why this should not begin even in the kindergarten. The habit of using one material in imitation of another, and materials which are so flimsy that they will not serve the purpose for which they are intended, begins the establishment of a false standard, which reaches its logical culmination in the tawdry imitations of the modern department store. It was a pleasure to find in a recent exhibit specimens of kindergarten furniture made out of cigar-box wood, instead of the traditional cardboard and paper. These pieces had a substantial appearance and a look of reality that must have given satisfaction even to an infant mind. When a child reaches an intellectual development where he can manipulate a Navajo loom, he can certainly be led to realize as a concrete problem that it is necessary that within a certain space there should be a principal color-thought, and that in order to gain this end one set of colors must be subordinated to another. To allow him to exercise a savage taste, without any effort to bring higher standards to bear upon him, would be equally as criminal as to make him draw abstract designs when he is not ready for them.

Aesthetic growth must proceed through the reaction in expression and through the influence of art masterpieces. These are of value in two ways: first, they become an expression of the child himself by presenting an idealization of his own emotions; secondly, they furnish technical standards. It is only that which corresponds to or idealizes the world we see or know which is beautiful to us. The corollary of Browning's oft-quoted lines is that we do not love seeing painted things that do not awake within ourselves the echo of any corresponding experience. When we use the term "experience," of course the imagination must be included as one of its sources. Selection must be made from those works which the child can interpret. It would seem natural to find these among the works of races of corresponding development. The simple technique and dramatic action of Egyptian and Assyrian sculpture always awaken a response from children. The designs of primitive races are vibrant with strong and beautiful color. Such art-expressions as these should be held before the child as representing the ideals of which his attempts are faint echoes. If art is to be of value in his life, these ideals must move on before him—a guiding star, ever receding as he advances to the fulness of his moral and intellectual growth.

LILLIAN S. CUSHMAN.

UNIVERSITY OF CHICAGO
Laboratory School.

ELEMENTARY MUSIC TEACHING IN THE LABORATORY SCHOOL.

II.

SONG-SINGING.

Song-singing as a cultural means is the chief element in the music work of the school. From the kindergarten to the oldest class, carefully chosen songs with piano accompaniment are taught to the children by rote. As far as possible, their own choice is noted, and such songs are selected as shall directly appeal to the genius of the group. At first it seemed a matter for regret that a collection of songs suited to our requirements could not be found, that each child in learning a new song might be having added practice in sight-reading. It is evident, however, that in singing from the printed page there are certain restrictions in bodily poise which reflect upon the volume and quality of tone, while much of the ear-training and memorizing connected with the rote song is lost. The piano accompaniment is valuable as a cultural means. Its presence cultivates independence in holding the melody (incidentally a preparation for part-singing), while it awakens a sense for correct harmonic progression. Songs without a harmonic background lose the stimulating and inspiring quality which children beyond the primary grades should have. The three-part song whose harmony is complete and satisfactory without accompaniment—as Mendelssohn's "Lift Thine Eyes"—is also, of course, highly educative.

Songs learned in group work are sung in chorus practice, which occurs each week for one half-hour period. Until last year there were two choruses, the children from six to ten years forming one, and those from ten to fourteen years forming the other. This year the school has been divided into three social groups, and a chorus has been formed of each division. The children of six and seven have joined the kindergarten for social music, those from eight to eleven forming a second chorus, and the older children from twelve to fifteen forming a third. With this grouping the selection of songs has been freer and the grade of difficulty higher. In practicing a repertoire in a group it has been a successful device to allow each member to suggest a song to sing. This gives a sure indication of the songs best adapted to the genius of the group. Perfection has not been sought in the song-singing of the school; drill on detail would become drudgery to the child whose sense of melody is dull and whose pleasure in song-singing is proportionately slight. Such songs have, however, been chosen as should possess an inspiration for the children singing them, and a good rendition has been a natural outcome. An occasional suggestion as to bodily poise, deep breathing, and enunciation has been given, but in proportion as the musical sense has been awakened in the individual child has the singing become pure in quality and musicianly in phrasing.

For two quarters, winter and spring, 1900, the children received special vocal training from an assistant whose beautiful voice was a source of inspiration to them. Few exercises were given, the period being spent chiefly in song-singing, but through imitation an increased volume and better quality of tone were soon noticeable.

SONG-COMPOSITION.

In the early years of the school creative work in music was carried on by means of short phrases. To a given poetic phrase or line the children were encouraged to offer an original musical setting. This was then harmonized by the teacher and used as a basis for rhythm analysis and further technical work. The method is one originally created for classes of children who are making a special study of music. In a school where children without special musical motive have to be considered this method of separate phrases does not possess sufficient intrinsic interest. To take the work out of the realm of arbitrary exercise and to give it a motive appreciable to the unmusical child, we have enlarged its scope and instead of phrase-writing have attempted song-writing. When the idea of writing an entire song with words and music was first presented to the children, they regarded it as a daring enterprise. The first song, "Hurrah for Thanksgiving and the Football Game," was written in a spirit of frolic. About forty songs have been completed by the children since this first, and the work is now regarded by them as being more serious than any other phase. The formal work included in the notation limits the production, and two songs a year are usually as much as a group asks to write.

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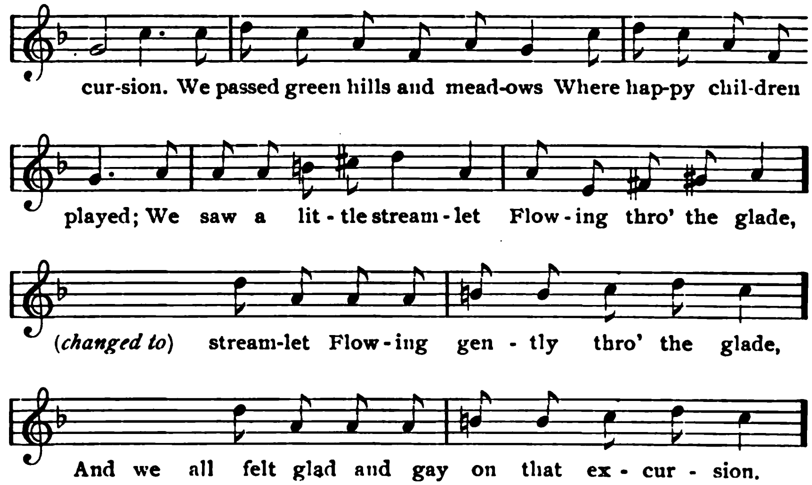
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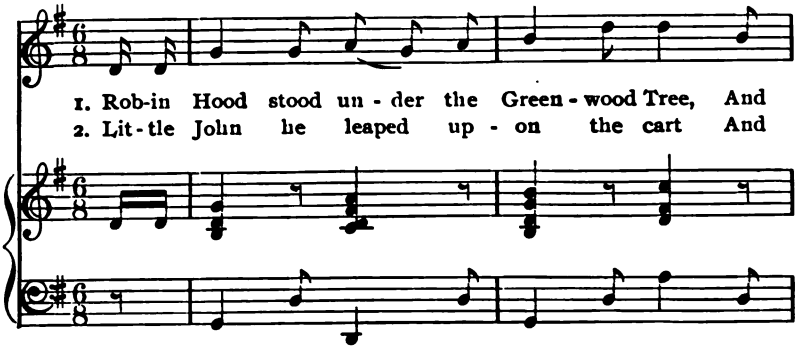
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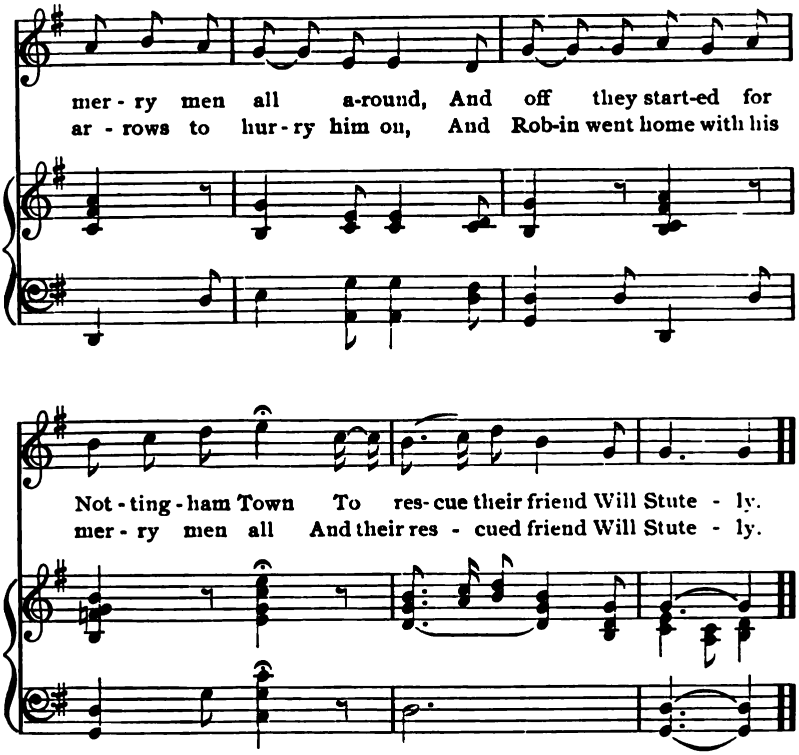
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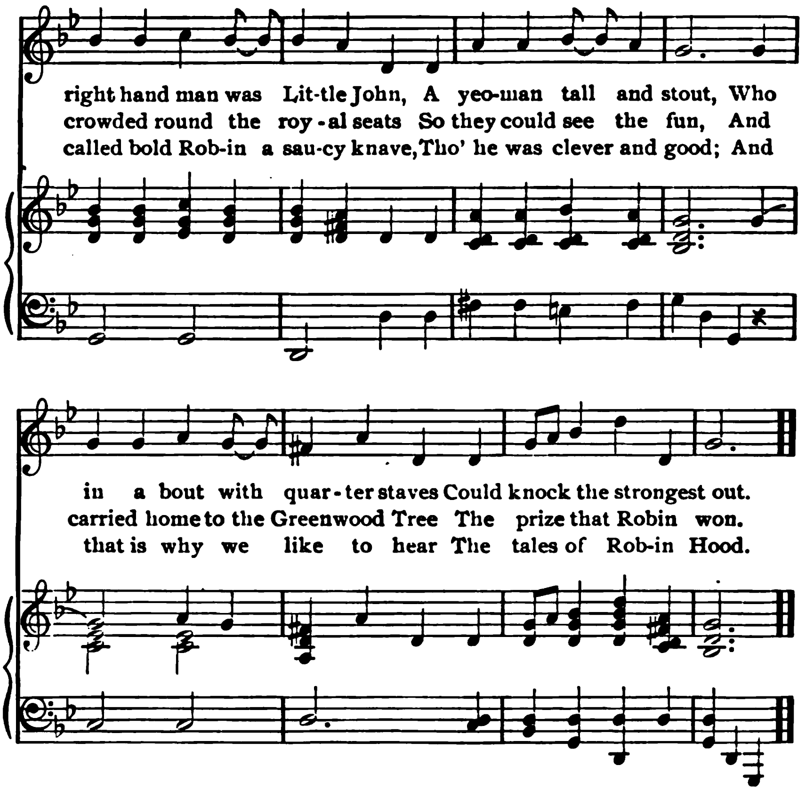
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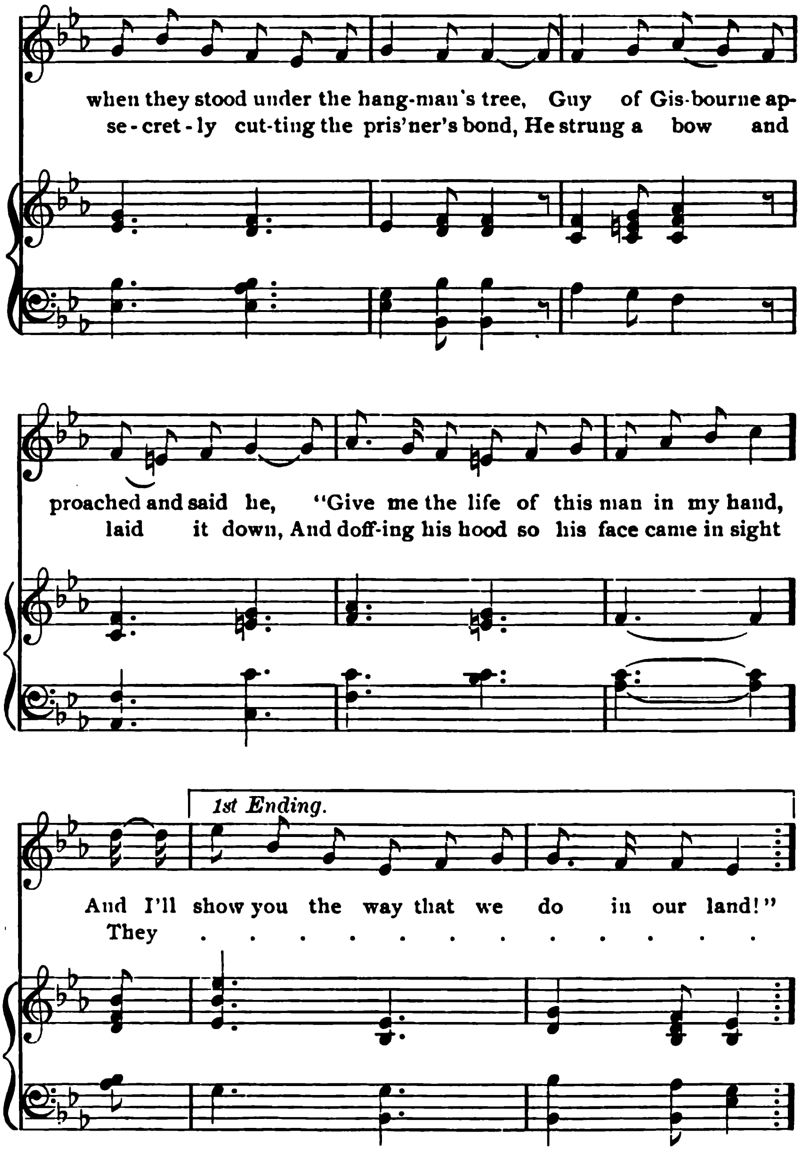
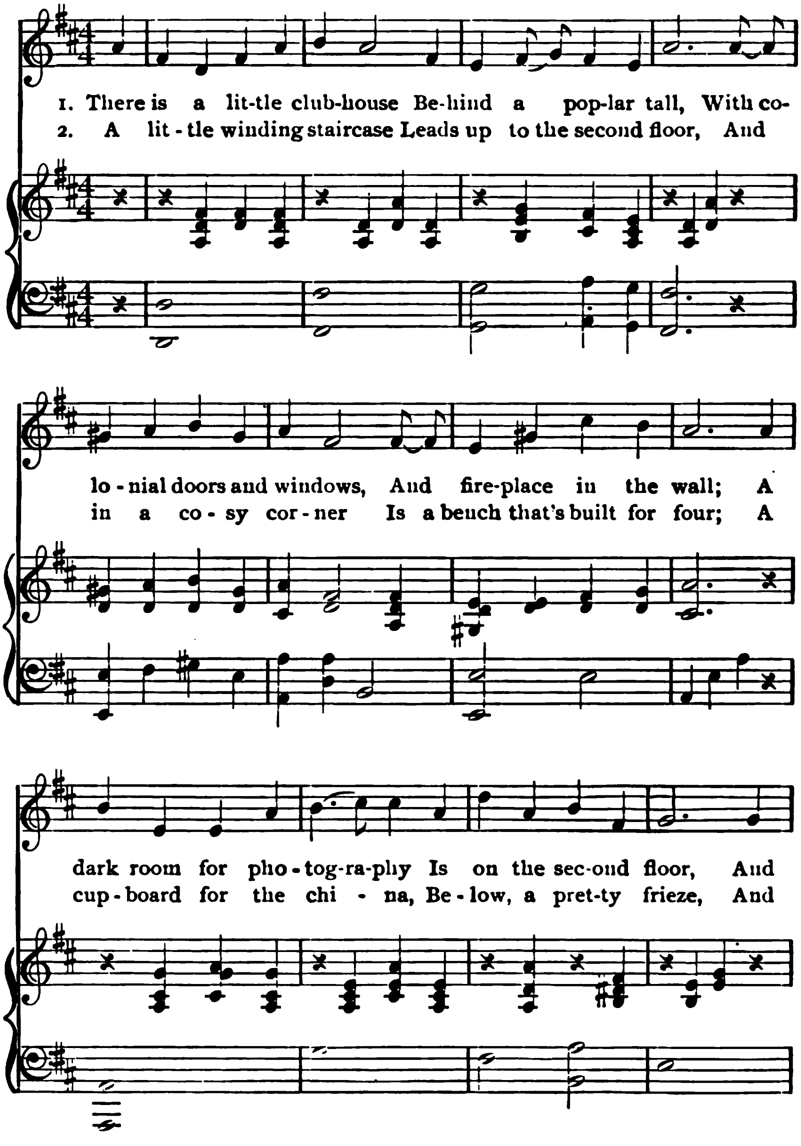
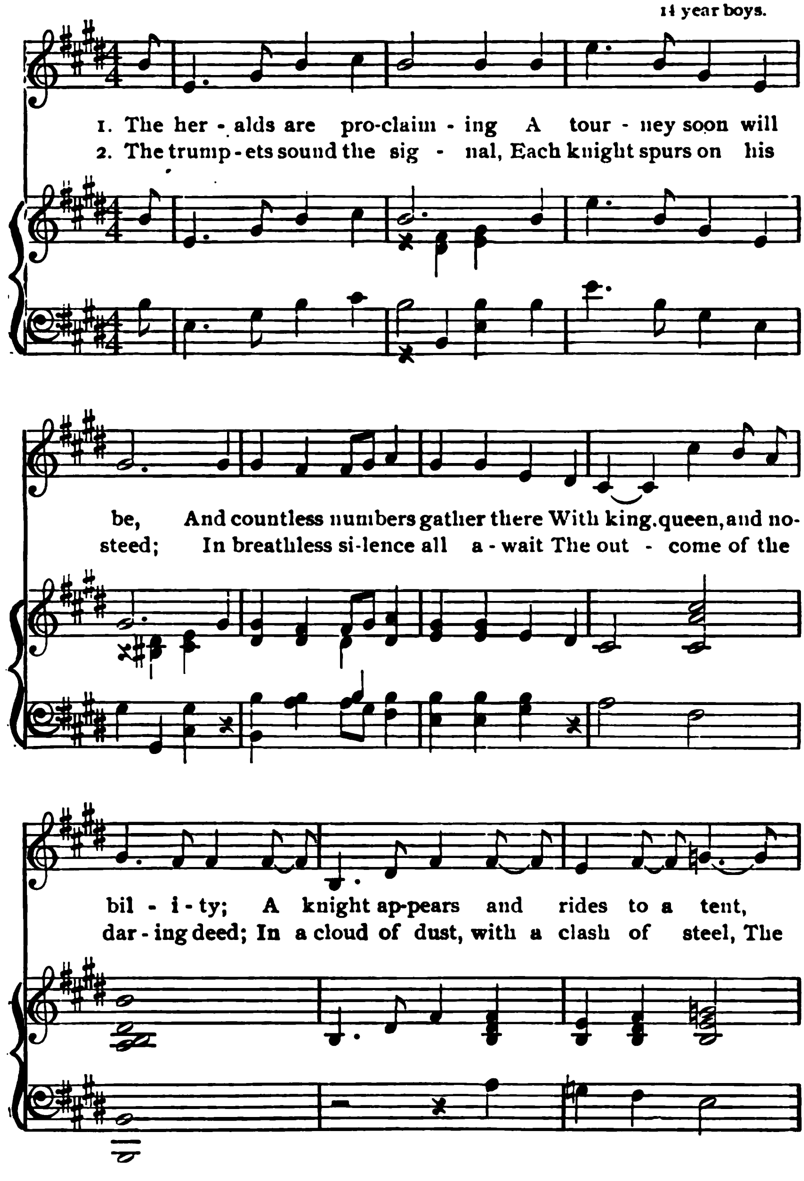

when they stood under the hang-man's tree, Guy of Gis-bourne ap-
se-cret-ly cut-ting the pris'ner's bond, He strung a bow and
proached and said he, "Give me the life of this man in my hand,
laid it down, And doff-ing his hood so his face came in sight
1st Ending.
And I'll show you the way that we do in our land!"
They . . . .

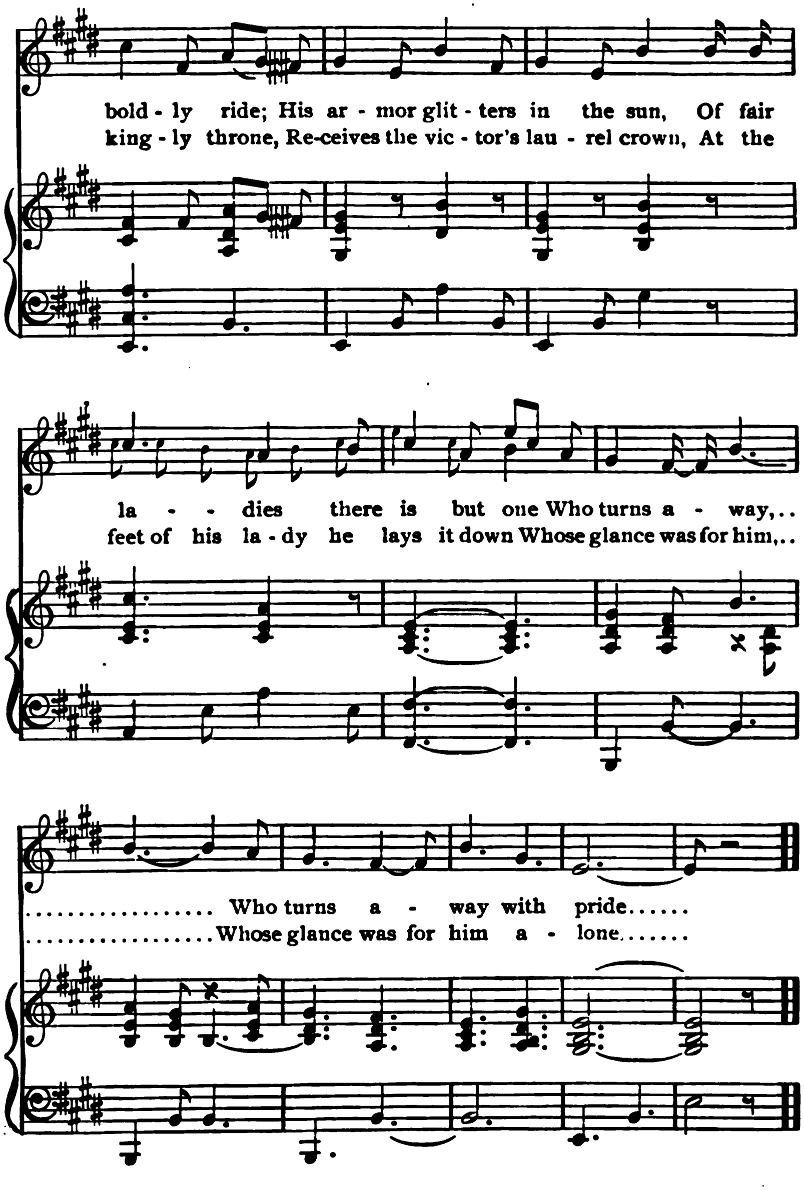
THE CLUB HOUSE.

Words and melody by 13 yr. children.


1. There is a lit-tle club-house Be-hind a pop-lar tall, With co-
2. A lit-tle winding staircase Leads up to the second floor, And
lo-nial doors and windows, And fire-place in the wall; A
in a co-sy cor-ner Is a bench that's built for four; A
dark room for pho-tog-ra-phy Is on the sec-ond floor, And
cup-board for the chi - na, Be-low, a pret-ty frieze, And

THE TOURNEY.


14 year boys.
1. The her - alds are pro-claim - ing A tour - ney soon will
2. The trump - ets sound the sig - nal, Each knight spurs on his
be, And countless numbers gather there With king, queen, and no-
steed; In breathless si-lence all a - wait The out - come of the
bil - i - ty; A knight ap-pears and rides to a tent,
dar - ing deed; In a cloud of dust, with a clash of steel, The


bold - ly ride; His ar - mor glit - ters in the sun, Of fair
king - ly throne, Re-ceives the vic - tor's lau - rel crown, At the
la - - dies there is but one Who turns a - way,..
feet of his la - dy he lays it down Whose glance was for him,..
.... Who turns a - way with pride......
..................Whose glance was for him a - lone.......

ELEMENTARY HISTORY TEACHING IN THE LABORATORY SCHOOL.

II.

In the next year, age nine, a change is noticeable in the attitude of the child toward his work. Some reflection is noticeable between the inception of a thought and the attempt to embody it either in words or in action. The child is beginning to select from the impulses that come into his mind those that lead toward the attainment of the object in mind, whether that object be the successive steps necessary to be taken to obtain an end or the order in which sentences shall be expressed to make a thought clear. It is the period when the child is beginning more consciously to form his methods of work and to consider his ideas of values. He begins to be interested in *how* he is to accomplish an end: he is interested in reducing methods to some system.[1]

With many educators the difference between the facts they would give to children and those they would give to university students consists merely in amount, provided the subject could be used at all with children. The more mature mind is expected from adults, or that he must reason out for himself abstruse questions of religion or politics. It merely means that, unless the bringing to the child's mind of new experience is in a form that he can assimilate into his own thought and past experience, it remains in his mind merely as a weight to be carried. Each mind is strong enough to carry a certain amount of "weight" until the time when it can be transformed into mind-stuff, but when the amount becomes too great, mental dyspepsia and the stoppage of normal action result. An instructor at the University of Chicago, whose interest in his own special subject was very profound, once said that "every professor is compelled to carry about a lot of impediments in the way of information, for fear some fool will find out he hasn't got it." Fortunately most minds forget promptly what they cannot use, so that it does not remain as impediments. But the waste of time in teaching that which can only be forgotten!

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[1] Dr. Dewey's statement of this period is found in the *Elementary School Record* for May, 1900: "This is the transition to 'voluntary' attention, but only the transition. The latter comes fully into being only when the child entertains results in the form of problems or questions the solution of which he is to seek for himself. In the intervening stage (in the child from eight to, say, eleven or twelve), while the child directs a series of intervening activities on the basis of some end he wishes to reach, this end is something to be done or made, or some tangible result to be reached; the problem is a practical difficulty, rather than an intellectual question. But with growing power the child can conceive of the end as something to be found out, discovered; and can control his acts and images so as to help in inquiry and solution. This is reflective attention proper. . . . . In general, this growth is a natural psychical process. But the proper recognition and use of it is perhaps the most serious problem in instruction upon the intellectual side. A person who has gained the power of reflective attention, the power to hold problems, questions, before the mind, *is* in so far, intellectually speaking, educated. He has mental discipline—power *of* the mind and *for* the mind. Without this the mind remains at the mercy of custom and external suggestion."

The problem of the teacher, at the beginning of the reflective stage, becomes more complex. In general she must see that the subject-matter of history is so presented that the child's mind will reach out, question, examine, and analyze the forces at work in causing the men and women who make up his part of history to act thus and so, in order to understand how their acts aided or hindered progress. History now becomes less empirical and more a matter of authentic record, so that the question of a definite recall of what has been studied comes more into the scheme. The attack upon the subject-matter is different; it is not so much a question of how a people *might* meet a problem of conditions as a question of *fact* and why it happened. During the previous years the child has gained some conception of space-relations in his study of the world as a whole; definite time has meant little. He must now get some idea of the effect of time. This begins vaguely, but as the study proceeds, a knowledge of dates as an aid in comparing events is found essential. The child is still studying indirect sociology, and his study must be one of types, in order that he may gain independent methods of work which will enable him to understand other problems of history. A statement of the problem at this age is given by Dr. Dewey in man, the alderman and the mayor, with all of which he has been somewhat familiar, have now more definite parts in the social world. Again he has a type of development which will aid him in comprehending the development of other cities.

After a study of Chicago, the rest of the year is given to the study of typical American colonies: Virginia as a southern colony, Massachusetts as a northern one. The connection is made by remembering where the Chicago citizens came from, and then going back to see how these people came to the Atlantic coast and how they first lived there. The church and the state as institutions come in now as parts of the social life of a people. In the study of colonial history efforts toward religious and political freedom underlie the life of the people. With the child, as with the colonists, the question is first one of how a people accustomed to civilization, suddenly removed to a new country at a great distance, can work out anew the question of living. On the side of England the question is: How can these colonies, started in order to draw from the new world the wealth which had made her rival, Spain, so strong, serve England's interests? The class studies what happened and gets as much as it is able to comprehend of the deeper questions. Naturally the first question is how the people in the new land can be kept alive, since they could not live as the Indians did, independent of the civilization from which they have come. When the new country has become sufficiently established to be able to exchange products for European manufactures, the question becomes an economic one. By this time the colonies feel strong enough to resist, and then comes the desire for independence which resulted in the Revolution.

The first consideration is, of course, the character of the people who came and their reasons for coming—the character of the land they found, their first attempts at establishing themselves, and the forms of government.

An attempt was made to get the children to eliminate those conveniences of civilization with which they are familiar until they began to realize how it would seem to live in America without a single railroad, steamboat, or road of any kind except

Indian trails and rivers; to be dependent upon England for every yard of cloth not brought with them, and for salt, pepper, sugar, vinegar, tea, coffee, etc.; to imagine how it would seem to have no fuel except wood, no means of lighting a fire except flint and steel; to have no oil for lamps, no cattle from which to get milk and butter; to have to build houses of logs, since there were no saw-mills. The children discuss the new conditions of life that must be met; for England was just beginning her empire and had to learn by experience the art of colonization. Methods of preparing food for indefinite preservation were unknown. Before fields in the new country could be cultivated, forests must be destroyed; and the Englishman knew but one way, that of swinging his broadax, until taught by his Indian neighbors to girdle a tree in the spring, before the sap began to run, either by cutting around it or by fire; for the Indian had only a stone ax. But when the green trees had been cut down with much blistering of hands and aching of arms, the settlers found that their English wheat, planted in the warm climate and fertile soil, sprang up rapidly and grew so fast that it all went to stalk, leaving the muscular strength as the only reward for the labor.

A vivid description of the settlement of Virginia and the motives which led to it is followed by a discussion of why things were as the historian describes them; whether the starving time was due solely to the "community of goods" system and consequent idleness on the part of the gentlemen who came to find gold, or whether it might not in part be accounted for by the lack of knowledge of soil and farming, and the difficulties of clearing ground with such methods as they then had. The children are thus interested in discovering that the English did not know how to plant corn until John Smith compelled an Indian to teach them. A few facts about Captain John Smith were sufficient to create a desire to know all about him, from his marvelous adventures in Turkey through his services to the Virginia colony and his exploration and naming of New England. The children thought his importance to the colony so great that they expected complete failure after he left, and, because it verified their predictions, were pleased to discover that, through attacks of the Indians (no longer intimidated by Smith), disease, and famine, the colony was reduced from five hundred to about sixty persons in a year.

A statement of the effect of tobacco in exhausting the soil was used to imagine the changes that would follow in the life of the people when tobacco was found to be the best possible export for Virginia, and especially when the value of slaves in cultivating it was discovered. It was easily seen that the large plantations, each with its own wharf, would make towns impossible, and that lack of towns would affect education, the demand for professional men, the army, and social life in all forms. But tobacco as an economic factor was not discovered until many experiments had been made; so the attempts to make Virginia a wine-growing country and a producer of raw silk were given as illustrations of efforts to make the new colony of benefit to the mother-country.

In following in story form the development of the first permanent English colony the child learns more than the mere facts. In considering the life of John Smith, or any other hero of the early times, he sees a whole life in perspective. He has had little experience with people that will aid him in judging character. In the study of characters in history the motives of action and the results stand out prominently; youth with its conditions and age as it has worked out its life are brought together. Thus the lives of historical personages bring to the child, in a sense, contact with the experiences of long life. This character study is made in connection with its natural setting, as the child images the life of the people and the times. That these persons studied are ancestors of himself or his friends gives a deeper interest to the work, and, as he identifies himself with the colony, he appreciates those who help on, and is indignant with those who hinder, progress; and this helping or hindering, he comprehends, is not a mere question of *willing*, but depends upon what a man *is* and has power to do. Therefore his conception of his own social world is becoming clearer, and he begins to get a glimpse of the close network which binds every individual to every other.

In the study of early colonial history the child is also getting an idea of law and government. The child of nine or ten has little idea of abstract law. Law is to him what he believes to be just and right, and this conception is to be enforced by his own strength. This was clearly indicated when the question of dispute over a boundary line occurred. To make the problem concrete, the children were asked to suppose two men to disagree about the place of a fence between their adjoining lots. What could be done about it? Almost without exception the children identified themselves with the man whose land would be decreased by moving the fence. They conceived only of the two involved as having any part in the matter, and the only solution suggested was that "some dark night the fence be moved back" to where the injured man thought it ought to be. When it was suggested that the next night the other man might move it back again, and that this might be kept up indefinitely, the gravity of the situation kept the class silent for a few minutes. Resort to violence was suggested, and that each get his friends to help. Original grants, resort to a judge, etc., seemed, when suggested by the teacher, much less likely to be a just solution.

From such crude ideas of law and government the children are led to consider the value to the colonists of the assembly and its share in the government, the question of the prerogatives of an assembly, the rights of a governor, the rights of the unrepresented people, etc. The study of colonial history, therefore, furnished only the "carrying medium" for the deeper and more universal study of the adaptation of a civilized people to the primitive conditions of a new environment, the study of character, the training of judgment. In these early days the prototype of our democratic form of government was worked out, and the child who is just beginning to be interested in the city and national elections is able to comprehend how they began.

In New England the colonial question has a different phase in the religious reasons which induced the Pilgrims and Puritans to leave their native land and seek homes in a new country. Commercial products in New England were different from those in Virginia, because of the difference in latitude and physiographical conditions. Lumber, fish, and furs are their exports. But the difficulties involved in exchanging these to the best advantage bring out the same trouble with England which Virginia had experienced with tobacco; the navigation laws begin to be enforced, and thus New England and Virginia, two colonies greatly unlike in the beginning, unite in opposition.

The question of contact with the natives in America gave an opportunity to review and enlarge concepts formed in the preceding year's study. Previous knowledge of primitive man, of Eskimos and Africans, and of Phœnician traders, is now brought to bear upon a people living in a temperate climate, and affords a basis for comparison as to the way in which the Indians had worked out their degree of civilization. In getting land from the Indians the same methods were used that have prevailed through the ages when a people with superior weapons and brains in sufficient number meet an inferior people. The question of the higher moral attitude in a few individuals, as when the Pilgrims and Willam Penn paid the Indians for the land they occupied, is seen. John Eliot is an Englishman who has the salvation of the souls of the heathen as much at heart as Marquette or Livingstone. The question of the development of government has different phases, and thus there is opportunity for comparison and for an enlarged view. New types of character are also studied as developed in New England.

The fur trader in colonial life was the pioneer of the pioneer. It was he who made friends with the Indians and discovered the fertile fields along the valleys and the naval stores in the pathless forests. The place where he waited to meet the Indians at stated seasons, the "fall line" of the navigable rivers, or the mouth of a tributary became the first rude village in the back country. These were the places where navigation by water ceased and boats must either be carried around a fall or across a strip of land—a "portage" to the next river. These little "trapper" stations were often surrounded by fields and cattle, as a permanent station was established, and grew gradually into straggling villages, especially if the falls furnished the power for a saw-mill and the surrounding hills the lumber. These little villages were the bulwarks of the older settlements. The life of the fur trader gives a truer picture of pioneer life than a general description of the first year at Plymouth, or than any one colony alone, because one is typical of pioneer life throughout the colonies, and the other of only one locality. In finding the routes of the first fur traders the boy or girl is getting his geography in the natural way—as the fur trader got his. He is getting also a lesson in commercial relations, if he finds out how the trader knew where there were furs and how he made his bargains with the Indians; why they decided on a particular meeting-place; how he obtained the right to trade; how he managed his business—whether the furs were tanned for him by the Indians or by his own men; where the furs were sold; whether duty was demanded, and how much; what was exchanged for furs in England, and what became of the exchange when brought to America. To discover this the child must be referred to books where he can find the facts; and in thus following out a line of thought he is getting a method of historical investigation as well as the power of drawing conclusions from facts. Moreover, he cannot, if he would, forget the facts, and it has all come about through his human interests and must react in broadening and deepening his sympathies. He is not only acquiring a knowledge of facts; he is being educated, refined, cultivated.

Expansion back from the Atlantic coast is also a typical condition, and can be well illustrated in the history of New England. Here the valleys run chiefly north and south, and in the valleys alone could the soil be made to yield fair returns. Northfield, Deerfield, Greenfield, Westfield, Springfield, etc., as the names of towns indicate the character of the land. The head of the valley could best be protected by settlers, and, as a reward for greater dangers, fertile fields could be appropriated. Expansion, therefore, was along the line of rivers, moving up the valleys. Narrow valleys necessitated rapid expansion; broader valleys were longer in being filled. Professor Frederick J. Turner, in his article on "The Significance of the Frontier in History," in the *Fifth Herbart Yearbook,* carries this idea out in explaining the expansion of the middle Northwest.

Lumbering and fishing are two industries which had much to do with the growth of the colony and with its political difficulties, and can be carried out as fully as the subject of the fur trade.

In studying one type fully, hidden causes are discovered which help to cultivate the investigating spirit. That the fishing banks of Newfoundland were the most prolific of the world is not taken as a statement merely, but the desire to find out to what this is due is aroused. This brings out the fact that the icebergs of the North melt in the warmer waters of the South, depositing the dust and débris they have carried; and this continually renews the soil on these shallow banks, making a fine feeding-place for worms. The worms attract the fish, which retreat to the colder and more brackish waters to spawn, but come here to feed.

In this year the ability to read and write is sufficient to make it possible to use books as a means of getting facts, and writing as a way of preserving records of work done. The plan has been to make this introduction to the use of books a habit which is to be followed throughout life. Books are used as a means to an end. A question is raised on which the book is conceived to be capable of throwing some light, and the table of contents or index is used to refer to the part needed. Occasionally the teacher refers the children to two books giving contradictory statements, in order that the child shall not acquire the habit of believing everything in print. A number of books which children of this age can themselves use, and which furnish much supplementary material to that taken up in class, are kept in the history room, where they may be referred to whenever desired. Each child purchased two books for use in class in the history of Virginia, and two for that of New England. But these were read as material supplementary to what the teacher gave orally. Map-modeling was chiefly in sand, but relief maps were referred to constantly in study.

In habits of work the plan has been first to contemplate and discuss the situation, and what the members of the class would deem best to be done, were they the colonists; next, either from the teacher or books, to discover just what was done; then to decide what would probably be the effect of the action or decision; then again to find out what history states as a result. The question of comparison of situations was taken up to see whether any other people whom we have had decided differently in a similar situation, and, if so, the result in their case.

The children are encouraged to draw conclusions from the facts at hand, and even to insist upon the validity of their conclusions from the data they have, always, however, with the feeling that more data, which may change the conclusion, may be discovered. One day, in talking over the question of precipitation of rainfall and its return to the clouds, one child insisted that, if all the springs were feeding the rivers, and all the rain fed the rivers, and all the rivers led into the oceans, either the seas would become bigger and bigger, and wash away all the land, or the clouds which absorbed the water would get bigger and bigger, and obscure the sun all the time. The teacher, thinking he was considering each process separately, tried to explain that both evaporation and precipitation were taking place all the time; but this did not seem to meet his difficulty. His earnestness in insisting that his conclusions must be right led to going back to the beginning, when it was discovered that he had thought the springs were the result of internal waters, unconnected with rainfall.

The habit of quickly recognizing what one does not know, and of investigating that, is also insisted upon. A word of which the meaning is not clear, a paragraph where the thought is obscure, a reference that is not understood, must be inquired into. One must be able to know what he does not know in order to learn.

This is the beginning of the teaching how to study, and is closely related to the gathering together in one's mind and arranging in order all that is known about the subject at hand. The aim of the teacher is to get the children to systematize their knowledge through their interest and their pleasure in the result. This must be done very simply at first, merely recalling where the same name has occurred before and in what circumstances, but leads gradually to power to hold the mind to a general thought, until into consciousness has come the full possession of previously known facts in regard to that subject.

Thus the method of attacking history is similar to that of science. There is first the recognition of conditions, an attempt to relate the situation to any previously studied; then a hypothesis as to the effect of manipulation of conditions; then a study of the effect; and then generalization of results. In the study of industrial questions in different colonies the child must recognize and abstract the principle of the demand to be controlled through their assemblies alone, as the one element in common with all colonies which would lead them to resist oppression from England. The child does not always get these deeper truths in definite forms that he can state, but the method of work has been such as to make them a part of his study of the life of the people. They are in his mind as problems which the people have to solve. Further experience and study cannot fail to bring them out in fuller significance.

No definite time limit is assigned for the ending of colonial history. From six to nine months are usually spent on the pre-Revolutionary period. This often carries the study into the work of Group VII (average age, ten years).

It is unnecessary to state in detail the methods of studying the Revolution. In general it should be said that the same scheme is followed as in the earlier years, viz., taking only that which is typical and fundamental, and then dwelling so fully upon this that it is conceived as a vivid picture of the times. The main lines of study are (1) the physiographical and (2) a consideration of warfare as a means of reaching a more ultimate result; (3) the growth of the spirit of union which culminated in the Constitution. The study of the campaigns of the Revolution is an opportunity to become familiar with the physiography of the thirteen colonies. For the first time the country held in America by English-speaking people became known to them through actual survey of its natural lines of travel and the relations of the various lines to one another. The Alleghanies, which had protected the weak English settlements from the strong tribes of the Five Nations in the Mohawk valley, were seen by

England to be the possible means of isolating the New England colonies from New York and the southern colonies. Thus the reason is seen for the northern campaign of Burgoyne from the St. Lawrence to Lake Champlain and the Hudson, and for the desperate efforts of Washington to defend the Hudson River route from New York, as well as the importance of Burgoyne's capture. Strategic points are thus a question of physiography. The importance of holding New York and Philadelphia in the same way was due, not to the fact that they were centers of large populations, as children so often think, but to the facts which in the first place made them large centers of population. So here again, as in the study of Chicago, the reasons for the location of cities are reviewed.

The physiographic conditions of a country are largely responsible for its industries. The New England farmers had discovered that their barren hills furnished pasture for sheep and cattle, and that cattle and wool were readily exchanged in the West Indies, together with their fish, for molasses, sugar, etc. England had by law prevented this trade. The fact that the laws could be only partially enforced did not remove the irritation they caused. From the wool, felt was manufactured into hats for export. But complaint of the London merchants brought about the passing of a law to "prevent the exportation of hats out of any of his majesty's colonies or plantations in America, and to restrain the number of apprentices taken by the hatmakers in the said colonies or plantations, for the better encouraging and making of hats in Great Britain." To understand the irritation such a law would cause, it is necessary to recall the stage of development of manufactures before the Revolution. In the study of textiles the children have worked out the invention of the various steps in the manufacture of cloth, from the primitive period, with the simple spindle and rough loom which limited the size of the cloth to the size of the loom, to the colonial period, when the heddle, roller, and fly-shuttle had been introduced, though all power is still by hand, and all manufacture in the home. They are therefore able to comprehend the change that would come with the beginning of inventions which brought in the factory system. They are told that steam had not been applied to machinery as a power before 1769, and that the spinning jenny (a frame with a number of spindles side by side, so that many threads might be spun at once) was not invented until 1770; that the use of water-power for Arkwright's loom was not used before 1771, and the "mule"—a combination of the spinning jenny and the water frame—not before 1779. When they understand how the power of spinning was increased by these three inventions, and that of weaving by the use of the power loom (1785); they comprehend how these inventions, rather than the removal of adverse English control, made possible the rapid growth of manufactories at the close of the Revolution.

The laws against exporting their own manufactured articles touched closely many individuals and aroused direct opposition, because of the domestic state of manufacturing at that time. The fact that trade regulations were modified because of the opposition expressed did not remove the uncertainty felt as to the use of English control over the colonists. And when the complete enforcement of even so small a tax as that on tea is attempted, the effect on people who had in mind the previous laws, and the results which might possibly follow success in enforcing even a small tax, is appreciated.

In the study of the Revolution, if the breaking down of opposition is conceived as the main end in view, the battles become but mere incidents in the struggle, and the unwholesome sensationalism of their details is to some extent avoided. It is an effort on the part of each combatant to see whether this last battle will not bring about the surrender of the opponent. So the center of thought and study is taken from the battles and focused on the ethical and scientific side of the struggle. First, which side is justified in beginning a resort to brute force as the only method of attaining its end? This consideration includes the study of characters strong in their belief in the justness of the cause, and willing to undergo great personal sacrifice and hardships, and even death, for the sake of a cause which they believe to be so vital to human progress. In the second place, on the scientific side, it is a question of what conditions must be taken into consideration, and how they can most easily be made to serve the end in view. This brings in the intellectual side, conceiving plans and carrying out tactics.

Following the terms of the treaty of peace, the acquisition of further territory by the United States, giving it its present boundaries, is studied.

The attempt has been made in the next year (average age, eleven) to give to the study of American history the same balance and completeness, through getting an outside point of view, that are given to the eight-year-old children in the study of the Phœnicians and early world-explorers. In each of these years the effort is made to gather together the knowledge of the two preceding years and grasp its significance as a whole in larger relations.

The attempt was made to see the development of the American colonies from a European point of view. England, France, and Spain were taken as the countries which attempted colonization in the New World, in the East Indies, Africa, and Australia. The methods and aims in claiming and holding territory; the character of the settlements; the connections with the mother-country; the comparison of colonies established by a country in different parts of the world (as England's colonies in America, India, Africa, and Australia); the conflicts of different countries over land claims, and the working out of some principles of international law; a comparison of the different national methods of establishing and controlling colonies—these were some of the points taken up. This scheme has not been sufficiently worked out to report upon in full. One of its chief difficulties has been the lack of books containing the facts written in a style that children of this age can read.

In brief, it may be said that the outline of work gave an opportunity to gain a general world-view of the subject of colonization. It was necessary to compare climates, to realize the physiography of the different regions, the industrial products possible, and the trade routes open for their exchange with products of other countries. The study also brought out the changes resulting in European countries from the opening of new lands, the knowledge of new products, and the necessity of dealing with larger areas, larger masses of people, new conditions. The concepts of society have thus been increased from the consideration of a single tribe and its problems to the consideration, comparison, and judging of nations. Throughout this year the point of view was the same as with the two years just preceding. The conditions were to be recognized as forming problems which the nation had to work out. Sometimes the problem was two-sided, the mother country forming one part, the colony the other. The number of conditions to be recognized and held in mind was much greater than in any preceding year, and the problem had to be stated in larger terms; but it was power to do this that was aimed at as well as the knowledge of facts involved.

The foregoing is a report of history, in which the subject-matter and method of treatment have been made a matter of experimentation, and the results have been deemed satisfactory. Other periods of history have been studied, especially that of England and of Rome; but the best age at which to introduce these, and the character of the subject-matter and method of treatment, have not been sufficiently determined to make a report desirable at this time.

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THE BEGINNING OF FORMAL LANGUAGE WORK.

SPOKEN and written language have two phases: thought, and that which conveys the thought—the words. While children cannot profitably study the form of expression without studying the thought which it expresses, they may safely study the adaptability of the form for expressing the thought. As a locomotive is kept in good repair, cleaned, and oiled that it may convey its cargo safely and speedily, so words, which are worth nothing apart from their function, must be well chosen and arranged that they may convey the speaker's thoughts simply, accurately, clearly, concisely, sometimes powerfully and sometimes beautifully. While children cannot fully appreciate this fact, they can realize some need for working on the engine, and, if the right spirit prevails, they will enjoy the cleaning and oiling which fall to their share.

Very little attention should be called to any distinction between the thought and its dress until the children's minds are well stored with ideas gained from a keen and happy observation of the outdoor world; from good stories; from songs and poems; from interesting biography and history; from drawing, painting, and hand-work; and from their contact with others in their homes, in school, and on the playground. Through reproductions of stories and conversations in the recitations, the children learn to express themselves, orally, with considerable freedom. Children from families where pure English is spoken speak with comparative accuracy; others, coming from homes where there is a lack of culture, use very poor English. Schools differ greatly in this respect. Those located in a city's slums have a class of children who scarcely ever utter a correct sentence, and whose vocabulary is very limited; while those in the best quarters of the city are attended by children who speak excellent English and have a surprisingly large vocabulary.

To correct an inaccurate expression, during the early part of the school life the teacher gives the correct form in so quiet a tone that the child's thread of thought is not broken, and he repeats his sentence, or a part of it, using the form suggested by the teacher. *E. g.*, the child says: "I seen a bluebird this morning." The teacher, apparently unconsciously, deeply interested in what the child is saying, says: "You *saw* a bluebird this morning;" or she simply says *saw*. The child repeats: "I saw a bluebird this morning;" with his thoughts intent upon the fact which he wishes to convey.

If this method of procedure were to give us accurate speaking on the part of the pupils, it would need no reinforcement as the child advances through the grades. It cannot help but amend the child's language, for every time he repeats a correct form a fine thread of a habit of using that form is being woven. The muscles of his throat and of his tongue become accustomed to forming the words, and his ear becomes used to their sound. But when out from under the teacher's care—at home perhaps, or on the street—he hears the incorrect form used over and over, and uses it himself because it is more natural for him to do so. This strengthens the old habit. Something, therefore, must be done at some time to secure the conscious co-operation of the child in forming good habits of speech, if he is to use good language. While teaching to this end should not be hastened unduly, it must be remembered that had habits are getting a firmer hold with each added year.

Perhaps about the third year of school it would be well to use fifteen or twenty minutes a day teaching children to speak and write correctly. Not only would their forms of expression be improved, but they would be able to think more clearly. If most of the school day is spent in what are termed (with somewhat unfair discrimination) thought-studies, there is little danger that the child will think more about how he talks than of what he has to say.

Of what should the formal language work consist?

1. Of a campaign against the most common and most flagrant errors in speech, such as *seen* for *saw; done* for *did; is* for *are; has* for *have; laid* for *lay; set* for *sit; ain't got* for *have no;*

can for *may* (in asking permission); *yourn* for *yours; in* for *into; like* for *as; me* for *I*.

2. Of careful teaching of the conventions of writing. It is not our purpose, in this paper, to show how the very beginnings of writing and of spelling should be a struggle of the child to express himself. We are dealing with children who have already acquired the rudiments of both writing and spelling. These branches of learning are important and are taught in the third grade as occasion demands; but it is not within the province of this paper to deal with them.

a) There are two topics in spelling, however, with which we shall deal—the division of words into syllables, that a word may be properly divided when occurring at the end of a line, and the correct use and spelling of homonyms which children of this grade use.

b) They must learn, also, the value of certain punctuation marks, and how and when to use them. When talking, their thoughts and feelings were shown by inflections of the voice, by gesture, and by the expressions of the face; the punctuation marks suggest these to the reader. As these little folks express themselves simply, they will not need to use many different punctuation marks.

c) They must learn certain uses of capital letters—but only such as they need in their writing.

d) They need to learn early the use of the apostrophe and *s* showing that the words with which they are used denote possession.

e) They need to learn that the title of a composition tells in a few words what they are writing about. It requires careful thought to select the wording which will do this. Having chosen the subject, they must learn where to place it and how to write it.

f) Fashion among literary people has decreed that a margin be left at the left side of the paper. This they must observe. It it a real convenience for the children—a necessity, rather—when they wish to bind their papers.

g) They need to learn early how to give due credit for exact words quoted.

h) They should learn to organize what they have to say into paragraphs, the indentation to be the expression on paper of such an organization. This will be done only when the topics of conversation are clearly separated.

i) As most of their writing will be done in the form of letters to friends, they should learn that such a letter is only a talk on paper, the only formal thing about it being a somewhat conventional, but really useful, heading, which they must write properly if their letters are to please the eye.

3. One of the most important things for them to learn is to express their thoughts in fitting language. This involves a careful selection and arangement of their words. Not very much can be done along this line in the third grade, but a beginning can well be made.

SOURCES FOR THE FORMAL LANGUAGE WORK.

Through the children's oral reproduction of stories, their narrations and conversations, the teacher discovers their incorrect forms of speech. This plainly lays out her work along the line of reconstruction of oral language.

By far the most important thing for the children in the written work is the free expression of what is in their minds. They write compositions in connection with their literature, geography, and nature-study; tell how they play games, how they make certain articles, how they spent a holiday; describe a trip made by them into the city or into the country; tell of their plans for the future. All of the things which interest them they enjoy telling on paper. Absolute freedom to express their thoughts should be given them while they write these compositions. A drill in spelling the words which they will need to use; organization of the subject; caution, if need be, in regard to leaving the margin, position of the subject, or any other point in which they are weak—may precede the writing; but when they have begun their compositions, they should not be disturbed. It is the examination of these papers which reveals to the teacher the needs of the child in written expression, and suggests to her the help which she should give.

All the formal language work should have its origin in the immediate demands of the child for help in expressing herself. Often he does not appreciate his need for help, but it is the business of the teacher to make him conscious of it, and, after that, sensitive in regard to the mistake which has been brought to his notice, until the correct form has become a fixed habit. There is no set order of topics to be taken up in the language class. The time for the teaching of each topic is determined wholly by the present demands of the child for help in expressing himself, as shown above. If the pupils talk and write without making mistakes, they need no drill, and there is no call for formal language work.

Because of a hope and a half-way belief that the children will learn form by intuition or by attention to the form of good speakers and writers (their attention being directed to no point in particular), pupils often go out of school poorly equipped to express what they know. They are thus handicapped in business and in society. Many children never reach the high school, where composition and rhetoric are usually taught; if they do, their habits of speech and of writing are firmly fixed. The good of the child demands the forming of correct habits of speaking and of writing early in the school course.

How shall the children be taught these elementary lessons in English?

The pupils must, as we have said before, appreciate the fact that each lesson is supplying a demand of their own as shown by mistakes in their speech or in their writing. The lessons must be within their comprehension and must be interesting. A few suggestions of one way of dealing with some of the problems are given here:

1. To correct forms of speech.

In a nature-study lesson, we will suppose *I seen* has been used over and over, and quietly corrected each time by the teacher. A moment before the end of the recitation the teacher writes near the top of the board, where it will not be erased and where the pupils will see it often, *I saw*. She tells the children that whenever she points to that expression they are to know that they have made a mistake and are to correct it without further help. The children are encouraged to correct one another on the playground whenever they hear the wrong expression, that is, if a kindly spirit in this criticism is assured. During school hours the pupils will not criticise the speech of any of their number, no matter how often a mistake is made; for if they are looking for flaws in language they cannot give undivided attention to the thought. There was no need in this case for a separate period for language.

The following case requires more attention: Some morning the children are allowed to choose the songs which they are to sing and the poems which they are to recite. As usual, they make their requests in full sentences. Several of the children use *can* where they should use *may*. During the period allotted to language-teaching the mistakes which they made during opening exercises are referred to. The teacher tells the children that whenever they ask permission to do a thing they should use *may;* but should they wish to ask if they are able to do a thing, they use *can*. She may say to the pupils:

You wish permission to play a game; how will you ask for it? The creek is high; you wish to know whether or not you can ford it; how will you ask? Ask, on paper, permission to do five things. Ask in five sentences if you are able to do certain things. Ask three questions, beginning each sentence with the word *may*. Ask three questions, beginning each sentence with the word *can*. Which sentences asked permission? Which asked if you were able to do certain things? Copy the following, filling the blanks with *can* or *may*, as the sense requires. Think of yourself as speaking to the teacher:

—— we dramatize a story? —— we use the brooms for the poles of our wigwam? —— you guess what story we are to dramatize? —— the platform be moved? —— we invite our parents to see us dramatize the story? —— we do it well enough for them to see? —— we decorate the boards with pictures illustrating the story? —— we give the whole story in one afternoon?

The last blank, of course, may be correctly filled with either *can* or *may*. Before the teacher passes judgment upon the accuracy of this sentence she must find out the thought which prompted the child to use the one or the other.

After this lesson the teacher writes *May I* upon the board, because this is the expression which the children need most often to use, and they correct their wrong expressions by the teacher's silent reference to it.

2. To teach and to correct written forms.

a) How to divide a word the whole of which cannot be written at the end of a line.

The teacher pronounces a familiar word, slowly breaking it into its syllables, and asks the pupils how many parts or syllables. Many other words are pronounced in this way; among them are given words of one syllable. The children tell the number of syllables in each word. She then asks the pupils: "If a word is to be divided at the end of a line, where do you think the division should be made?" The thoughtful children will say that it should be made between two syllables. Many words are put upon the board, the children telling where the divisions in the words should be made.

b) The use and spelling of the homonyms *two, to,* and *too.*

Suppose that the pupils have spelled *two* incorrectly in one of their compositions. During the language hour the teacher sends the whole class to the board. She says:

You told me yesterday, on your papers, that Gluck had two brothers. Several of you did not spell correctly the word that tells how many brothers Gluck had. One that is sure that he knows how to spell the word may write it. Then all write it. When do you spell the word in this way? (When it tells how many.) In the same story you wrote that Gluck climbed to the brink of the Golden River. How did you spell the word *to* in that sentence? You said he wanted to go. How did you spell the word *to* in that sentence? Give other sentences in which this same *to* is used. Write five sentences containing the word *two* [the teacher writing it upon the board]. Write five sentences containing the word *to*. Copy the following story, filling each blank with one or the other of the words about which we have been talking, according as the sense requires:

——dear old women gave a party —— all the children in our neighborhood. The party was —— begin at —— o'clock. I had —— go —— miles —— town —— get me a pair of shoes. When I arrived at home I found that the —— shoes were not mates. It was nearly time —— start —— the party. What should I do? It would do no good —— cry. I must go back —— town. I took —— steps where I had taken one before. This time I put on the —— shoes and wore them home —— make sure that they were all right.

I was —— hours late at the party, but I stayed —— hours after the others had gone home to make up the time I had lost. Father came —— get me. He said that was not the way —— do, and that I should not punish the people who gave the party on account of the mistake of the merchant. I hated to meet those —— old people after that. I felt like a thief, for I always thought of the —— hours of their time which I had taken.

Henceforth the children will be expected to spell these two words correctly. The use and spelling of *too* will not be taken up until the children have occasion to use it in their writing. When such occasion arises—as, for example, in this sentence, "My cakes are too large to give away"—a lesson like the following may be given. The teacher says:

In this sentence which you wrote yesterday [pointing to it where it stands on the board], most of you misspelled the word *too*. What did the old woman mean when she said her cakes were too large to give away? Say it as she might have said it. [My cakes are so large that I do not want to give them away;" or, "My cakes are larger than I wish to give away;" or, "My cakes are so large that I cannot give them away."] Which is easier to write—the sentence as you wrote it yesterday with the word *too*, or one of the sentences which you have given? Of what use is the word *too?* [It helps us to say what we wish to say in fewer words."]

Give each of the following sentences in another way, not using the word *too*:

The little match girl was too tired to go farther.
The porridge in the largest bowl was too cold.
The donkey was too old to work.
The duckling is too ugly to live.
What is the use of *too* in each of the above sentences?

Sentences with blanks to be filled involving the uses of *to, two,* and *too* will now be given.

There are other uses of *too;* these will be taken up when needed by the pupils in their written work.

c) The significance of the paragraph and its form.

A short story in which the division into paragraphs is very clear will be written upon the board; *e. g.:*

THE ANT AND THE DOVE.

An ant was very thirsty. It went down to the river to get a drink, but the water was flowing so swiftly that it was carried away.

A dove was sitting in a tree which spread its branches over the river. She saw that the water was carrying the ant away, so she quickly bit off a leaf and dropped it into the water. It floated down to the ant. The ant clambered upon it and after a long ride was left on the bank of the stream.

A few days after this the dove was again sitting in a tree. A hunter crept softly toward the tree. He raised his gun and was about to fire when an ant gave him a vicious bite on his hand. He cried out with pain and dropped his gun. The dove, hearing the noise, flew away. It's little friend had saved the dove's life.

The pupils are acquainted with the word *paragraph,* it having been used many times in their reading. They can also distinguish the paragraphs in their reading, but no attention has been called to the significance of the word. The teacher asks the children to tell, in a very few words, what the first paragraph tells about; the second; the third. The pupils give topics worded somewhat like the following:

The accident to the ant.
The rescue of the ant by the dove.
The rescue of the dove by the ant.

The teacher asks: "How many parts of the story? How are the three parts separated?"

Other stories are placed upon the board, and the topic of each paragraph is given by the pupils. A set of Readers in which the paragraph form corresponds with the paragraph idea is brought to the class, selections from these are made, and the topics of the paragraphs are given.

Later, topics covering a familiar story are given to the pupils. They write the story, following the order of the topics, and separating into paragraphs as suggested by the topics. *E. g.,* in the story of "Red Riding Hood" these topics are given:

a) Red Riding Hood at home
b) The meeting with the wolf
c) The wolf at grandmother's house.
d) Red Riding Hood at grandmother's house.
e) Rescue of Red Riding Hood.
f) Her return home.

Later still the pupils take stories with which they are familiar, and from memory divide them into paragraphs, giving the topics of each paragraph.

Enough examples have been given to show how the formal language work grows out of the other work and reacts upon it.

It is partly constructive and partly reconstructive. When possible, dangers are pointed out just as they come into sight, and so escaped. When a misstep is made, the pupils are shown how to avoid a similar one in the future. Our purpose has been simply to show the need for more definite help for the children in their language work at just the time when they should have it and to plan to meet the need. It is not necessary at all that a period be set apart for this work, but the work is more apt to be done if this is the case; and it certainly needs to be done.

If, with the added needs and ability to think and do in each successive grade, as much or more be done in language-teaching each year, our pupils will be better able to appreciate and profit by grammar and the kindred studies when they are taken up.

This phase of language work about which I have written is not by any means the principal thing to be worked for. Free expression of the children's thoughts is the great thing—the one which should receive by far the greater share of attention. Only as this formal work helps the child better to express his thoughts and emotions is it of any value. Not long ago I read the letters written by a class of third-grade children to one of their number who had moved to a distant state. They told the boy just the things he would like to know. Their letters were long and very interesting and natural. They pleased me very much, for they showed that the pupils possessed the great thing in language work—the power to give out their thoughts freely. The words in these letters were poorly spelled, punctuation was lacking, and the general form was not pleasing to the eye. The letters would have been greatly improved in appearance had the children been taught how to present their thoughts on paper. The children possessed the principal thing, but they needed something more. It is this *something more* with which this article has been dealing.

In the third grade the greater part of the time in school should be spent in filling up—getting ideas; considerable time should be spent in pouring out, orally and in writing; and a little time in learning how to pour out. It is *the little time* only for which I make a plea.

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NOTES ON FOREIGN LANGUAGES IN THE ELEMENTARY SCHOOL.

1. THE study of the Report of the Committee of Twelve of the Modern Language Association of America (republished by Heath & Co.) is recommended as the best contribution to the teaching of modern languages in this country.

2. The study of a foreign language ought to begin in childhood. In childhood the organs of speech are still in a plastic condition. Good habits are easily formed; bad habits more easily corrected. The fixation of speech habits in the mother-tongue, taking place in the later period of youth, makes it increasingly difficult to acquire even a moderately good pronunciation, and perfection is usually out of the question.

In childhood the mind acts more naively, and the memory is tenacious of whatever interests. Forms of expression, idioms, are readily mastered as single facts. Later in life, in proportion as the mind grows stronger, it also grows more rigid. Then the habit of analyzing and reasoning interferes more or less with the natural receptivity of the student.

3. It is doubtful whether a foreign language should be taken up in the primary grades, unless the beginner has the prospect and intention of continuing it through the secondary school. For what can be acquired of a foreign language in the primary grades, even under the most favorable conditions, is only a foundation. And while it is true that children learn quickly and easily the rudiments of conversation in a foreign tongue, it is also true that they forget them no less quickly and easily.

4. It is not advisable that a child study two foreign languages in a lower grade. Let it be optional whether the one foreign language be French, German, or Latin.

5. It cannot be doubted that pupils in a three- or four-years' course of secondary schools can learn the foreign language well enough to speak and write it with tolerable accuracy. How

much of this can be accomplished within the elementary school has yet to be ascertained. The study of this problem ought, therefore, to appeal to schools interested in educational questions.

6. Incidentally these schools would provide valuable opportunities for observation for the future language teachers studying at the University, as do public schools for some of the state universities. And the best methods worked out in their classrooms would thus speedily reach a large audience.

7. The teaching of foreign languages in the primary grades should be done by teachers who handle the language easily and idiomatically. The grammar method pure and simple would here not be in order. The general aim should rather be to familiarize the learner with the vocabulary and phraseology of the spoken idiom, and to teach him to express himself readily and correctly in easy sentences. The free use of objects and pictures is to be recommended. Classes should be as small as possible, and there should be an exercise on every school day. Infrequent lessons in large classes amount to nothing

8. The introduction of the study of modern languages into the school curriculum, especially of this country, is comparatively new. Owing to this, the results attained are often unsatisfactory. This lack of success ought not to discredit the educational value of the subject in question.

9. Efficient teachers are rarer in modern languages than in other branches. Causes for this: more expensive preparation owing to the stay abroad, lack of training facilities, the remuneration smaller.

10. The vacillation between the worn-out grammar method and the so-called natural method, the other extreme, ought to give way to a systematic endeavor to discover the best way of presenting the new subject. The Teachers College of Columbia University, New York, called a teacher of the Berlin public schools to introduce their method of modern language teaching to American audiences by lectures and practice lessons. The Germanic Department of the University will ask Dr. Bahlsen to lecture here in June of next year.

11. The teacher of modern languages is hampered in his

class-room work by the lack of that ideal text-book that keeps to the golden mean between the old-fashioned grammar and the innumerable conversational methods.

12. It is pretty safe to assert that the average young boy or girl takes more kindly to French or German than to Latin. The modern language is easier and more interesting. It seems more real and practical. Progress is more rapid. The value of Latin has to be taken on trust; that of the modern language is more obvious to the juvenile mind. For children of twelve the Latin grammar is a very severe study. It means usually for many months little more than the loading of the memory with paradigms, a blind investment of labor for the sake of a mysterious future profit which the learner cannot comprehend. The elementary reading matter is usually dull stuff, devised to illustrate grammar. Up through Cæsar's *Commentaries* there is almost nothing to touch the feeling, to feed the imagination, or to suggest a real connection with the pupil's own life. It is all grind, though in the proper time and place a very useful one. But the question is whether for children of twelve it is not best to break the force of the initial impact with Latin by using a modern language as a buffer.

13. The mastery of a modern language is the best means of acquiring a full appreciation of the classical languages (a statement of special interest because made by a member of the Greek Department).

14. A child's wrestling with another language does not mean a delaying of the development of the child's intellect. Logical thinking is inseparable from expression in a foreign tongue. This leads to the discussion of the disciplinary value of linguistic and literary study, and the well-known reasons for the study of foreign languages in general.

PAUL O. KERN.

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BOOKS RECEIVED.

Le gendre de M. Poirier: Comédie en quatre actes. Par Émile Augier et Jules Sandeau. Edited, with Introduction, Notes, and a Vocabulary by Edwin Carl Roedder. New York: American Book Co., 1903. Pp. 144, 12mo; cloth.

Beginnings of Rhetoric and Composition, Including Practical Exercises in English. By Adams Sherman Hill. New York: American Book Co., 1902. Pp. 552, 12mo; cloth.

Some Useful Animals and What They Do for Us. By John Montieth and Caroline Montieth. New York: American Book Co., 1903. Pp. 232, 12mo; cloth.

Selections from Latin Prose Authors for Sight-Reading. By Susan Braley Franklin and Ella Catherine Greene. New York: American Book Co., 1903. Pp. 80, 12mo; cloth.

Electra. Por Benito Perez Galdos. Edited, with Notes and Vocabulary, by Otis Gridley Bunnell. New York: American Book Co., 1902. Pp. 185, 12mo; cloth.

A Laboratory Manual of Physics. By Henry C. Chesto, Philip R. Dean, and Charles E. Timmerman. New York: American Book Co., 1903. Pp. 128, 12mo; cloth.

More Money for the Public Schools. By Charles W. Eliot. New York: Doubleday, Page & Co., 1903. Pp. 193, 12mo; cloth.

The Nature-Study Idea: Being an Interpretation of the New School Movement to Put the Child in Sympathy with Nature. By L. H. Bailey. New York: Doubleday, Page & Co., 1903. Pp. 159, 12mo; cloth.

Dictionary of the French and English Languages. By W. James and A. Mole. New Edition completely rewritten and greatly enlarged. By Louis Tolhausen and George Payn, assisted by E. Heymann. London: The Macmillan Co., 1903. Pp. 564, 12mo; cloth.

Genetic Psychology for Teachers. By Charles Hubbard Judd. New York: D. Appleton & Co., 1903. Pp. 329, 12mo; cloth.

Arithmetic for High Schools, Academies, and Normal Schools. By Oscar Lynn Kelso. New York: The Macmillan Co., 1903. Pp. 274, 12mo; cloth.

The Real Benedict Arnold. By Charles Burr Todd. New York: A. S. Barnes & Co., 1903. Pp. 233, 12mo; cloth.

The Story of My Life. By Helen Keller. With her letters (1887–1901) and a supplementary account of her education, including passages from the reports and letters of her teacher, Anne Mansfield Sullivan. Edited by J. Albert Macy. New York: Doubleday, Page & Co., 1903. Pp. 441, 12mo; cloth.

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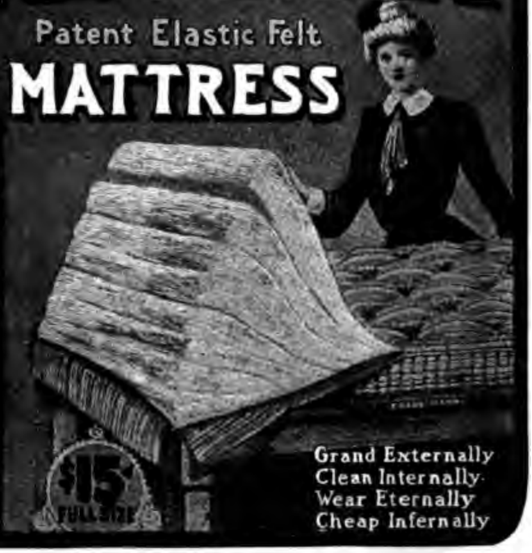

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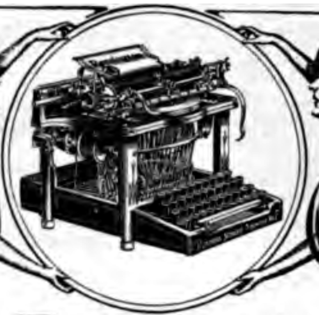

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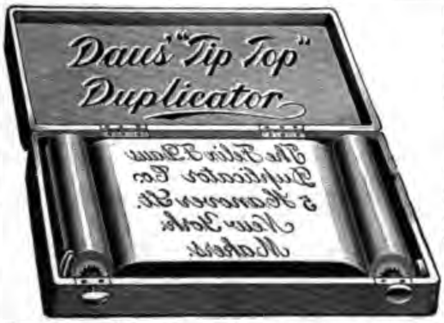

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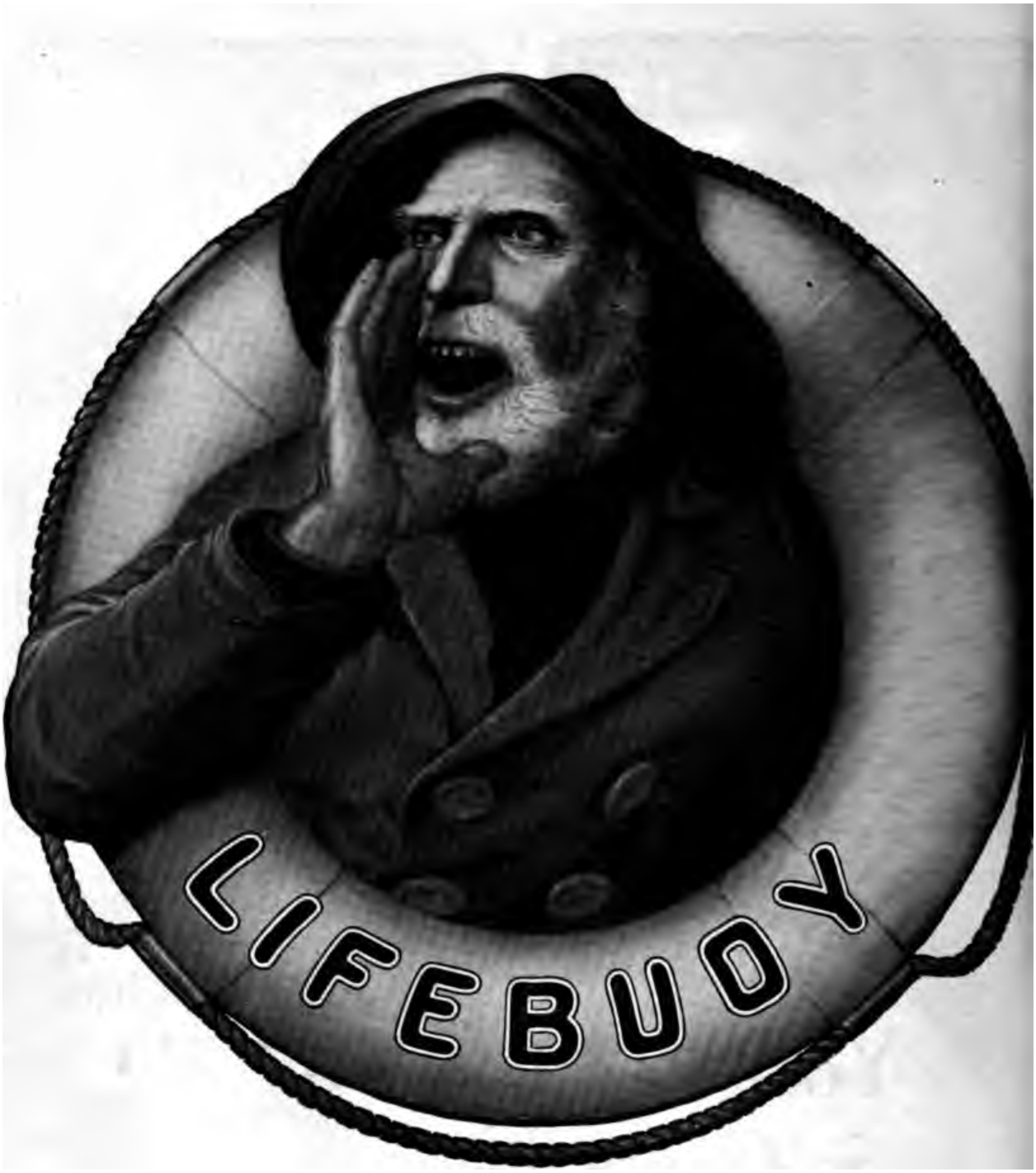

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OCT 19 1903

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CONTENTS FOR OCTOBER, 1903

SAVING TIME IN ELEMENTARY AND SECONDARY EDUCATION — ELLA FLAGG YOUNG 65

SOME STEPS IN THE EVOLUTION OF SOCIAL OCCUPATIONS. VI — KATHARINE E. DOPP 73

PRIMITIVE HISTORY IN PRIMARY GROUPS OF THE LABORATORY SCHOOL. II — KATHERINE B. CAMP 79

MODERNIZED ARITHMETIC - - - - - - - - - - - - G. W. MYERS 91

COURSES IN THE TEACHING OF NATURAL SCIENCE IN THE COLLEGE OF EDUCATION - - - - - - - - - - - - WILBUR S. JACKMAN 102

THE CORRELATION OF DRAWING AND MANUAL TRAINING - L. D. SUMMERS 107

BASKETRY - - - - - - - - - - - - - - ALTHEA HARMER 116

GENERAL EXERCISES - - - - - - - - - - FRANK H. MCMURRY 120

LITERARY NOTES ON RECENT BOOKS - - - - - - - - - - - - 126

BOOKS RECEIVED - - - - - - - - - - - - - - 128

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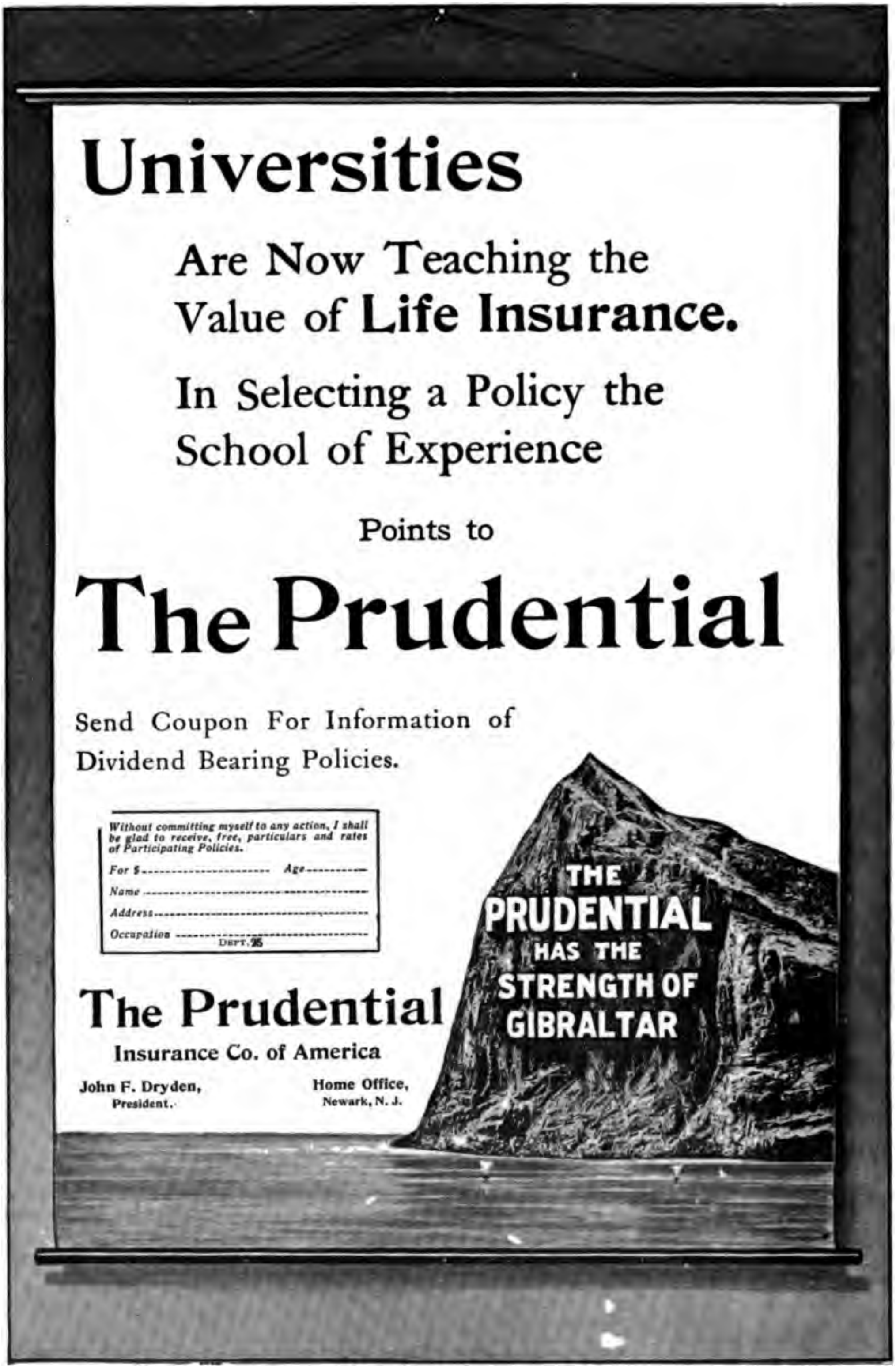

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VOLUME IV NUMBER 2

THE ELEMENTARY SCHOOL TEACHER

OCTOBER, 1903

SAVING TIME IN ELEMENTARY AND SECONDARY EDUCATION.[1]

THIS subject refers directly to the time element in education. It does not, however, present a problem in mathematics. Any solution, therefore, which is obtained by transposition will be a partial one only. There are two sets of conditions involved, each of which demands careful consideration with little or no emphasis upon the terms in which the desired answer will be stated.

The first set refers to the organization and relation of the school sections under consideration. It may be of interest and value in this discussion to review the manner in which the colleges and professional schools in this country have handled the questions of organization and relation which confronted them. The specific aim of the college and that of the professional school had been emphasized until it seemed as if college education and preparation for a profession or for specialization in science were antagonistic. A man or woman looking forward to becoming a self-supporting member of society found the beginning of apprenticeship in practical affairs deferred too long, if an effort was made to get something from both the college and the professional course. Progress in the solution of the time problem was made by the recognition of the fact that its conditions lay in both the common means and special aims of the college and the professional school.

To the general public and the conservative educationalists the reorganization of higher education has seemed to be directed largely in the interest of the short-term degree. This is a misconception of a movement which corrects a waste in time and effort, and thereby increases the efficiency of the schools concerned. With a fairly clear idea as to the general culture which should be the possession of a man or woman intending to specialize, and also of the knowledge essential in preparation for specialization, it was not difficult for the college and the professional school to determine their common means and so organize them that the responsibility in the common territory was properly placed, thus preventing repetition and correcting some tendencies toward indifferent work. On the other hand, with a clear idea as to the special aims of each, their relation to each other was sharply defined so that neither now attempts to do the intensive work that is the special function of the other. This concentration upon the organization and relation of the college and the professional school has rendered it possible for a student to secure the foundations of general culture, and out of them to develop specialized knowledge in less time and with better preparation than formerly, when subject-matter was indiscriminately appropriated by each section.

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[1] A paper read before the National Council of Education, Boston, Mass., July 6, 1903.

Turning to the elementary and secondary schools, we find a situation analogous to that which obtained formerly in the college and the professional school. With the development of the high school, the differentiation between it and the grammar school has been made sharper and sharper, until the time spent upon covering the work offered by the two combined has become excessive. The high school views its work, in comparison with that of the grammar school, very much as the professional school viewed its in comparison with that of the college. The treatment of subjects in the elementary school seems to fit the pupils in very slight degree for the work planned in the secondary school.

It is not unusual for high-school teachers to recommend, with great fervor and seriousness, limiting the elementary school to its special subjects, namely, reading, writing, spelling, arithmetic, and grammar. The efforts to introduce more general culture into the lower grades through the reading of literary classics are often frowned upon by the teachers of literature in the high school. Some teachers of mathematics have an attitude of disapproval toward algebra in the eighth grade. Within the last year there has come under my notice a marked illustration of this general tendency. A class of eighth-grade children that had been studying Latin two years, upon entering a high school was advised and urged to renounce all pretensions to any acquaintance with Latin, and to begin the subject as if it had never learned a Latin word. The teacher is a college graduate and a fine drill mistress. She based her advice upon experience with classes from the same elementary schools in which the members of this class had been taught; and also upon her preconceived ideas as to the impossibility of elementary-school teachers successfully and intelligently teaching subjects which were in charge of the high-school faculty especially. A readjustment in the arrangement of the school necessitated sending this class to another building, and to a teacher who had no well-developed ideas about the limitations and weaknesses of elementary-school teachers when instructing in a high-school subject. The second teacher has an undoubted standing as an excellent instructor. The previous work of the class was accepted without comment, and the study of Cæsar was begun. The class proved unusually strong. This instance might be construed as indicating the complications often introduced into the school situation by personal peculiarities. To some extent that construction would be correct, but it would not include all of the conditions.

In many cities the marked distinction between the two schools has come to be felt so keenly that within the last few years conferences have been held, in which the high-school teachers have told the eighth-grade teachers wherein their work was poor, and the eighth-grade teachers have reciprocated the courtesy by telling the high schools wherein they have failed. As an outcome of these interchanges of opinion, some high-school principals have expressed a willingness to take the seventh and eighth grades under their care; and, on the other hand, some elementary-school principals have expressed an equal willingness to keep their pupils a year or two longer, and instruct them in the subjects assigned to the ninth and tenth grades. These conferences are straws which indicate the direction of the general trend of thought.

It is usually said that the elementary pupils spend too many years in acquiring a slight acquaintance with the school arts; and yet, no one in touch with the best elementary schools believes their work is restricted to reading, writing, and ciphering. The facts in the case are that many subjects are taken up, but the heavy stress throughout the eight-year course is laid on rudimentary work which is not so developed as to lead into advanced work later on. It is the limitation to short reaches of experience in mental development and subject-matter that induces the strong teachers in the upper grades to emphasize the traditional in education with such stifling thoroughness. Those teachers sometimes doubt the efficiency of a school that enables its pupils to fit for the high school in less than eight years. They would be certain that a school which accomplishes what I saw done within the last fifteen years was radically wrong. A boy eight years old, unable to read, but with a method of his own in calculating, entered a school which covered the field of elementary and secondary education, and in seven years and ten months was admitted to Yale without a condition. Though he was not brilliant, he was a lad of good parts. As he was not delayed at any point in Yale, it is evident that his period of preparation was not too brief.

There are two points in the management of the school just referred to which are worthy of consideration: (1) the principal's daily experience ranged from the kindergarten to the college; (2) each teacher above the third-year classes taught the same subjects through the course for several years, thus giving continuity to those subjects and to the children's efforts with them. It is safe to assume that the arts of reading and writing were acquired in order that the children might use them in learning things; not that they might perform on a trapeze, devised for reading and writing gymnastics. The principal with valuable subject-matter developing in his higher classes had no interest in playing at the school arts in the lower ones. The teachers also knew what development of a subject meant.

It is doubtless true that many elementary schools enable the more highly endowed boys and girls to prepare for the high school in seven, and sometimes six, years. The secondary schools, however, have not made it possible for even the most brilliant children to graduate in less than the four prescribed years, their general attitude being in favor of giving the children entering at twelve or thirteen years of age "time to grow."

A young girl who was unusually proficient in arithmetic entered a high-school class in algebra that had finished the fundamental operations, factoring, the greatest common divisor, and the least common multiple. She made up that work in three days, without assistance; and yet, neither the teacher nor the principal of the school thought it wrong to keep her sauntering in algebra through the remainder of the year. Each dwelt upon her proficiency in algebra and her having "time to grow." The attitude of both was in no way in advance of that of the strong teachers who devote the eighth grade to reviewing and polishing. The high-school teacher was beating around on a year's horizontal plane in algebra. Without doubt he and the principal supposed they were working on the departmental plan. The great majority of elementary-school teachers and principals are opposed to departmental instruction. They labor under the same delusion that limited the teacher of algebra. They think that teaching five classes a day, in the same subject, and at the same stage of advancement, is departmental instruction. It is horizontal repetition. This self-imitation and the general lawlessness met in the many classes are not attractive, are not stimulating to mental activity in a high degree.

The elementary and secondary schools should be organized on the vertical departmental plan. Soon after entering school a child should be taught mathematics three or four years by the same teacher. If he has marked ability, the teacher will know what to do, for she will have classes in various stages of advancement in that subject. If he is not especially gifted, his teacher will keep him moving forward. He will not become a repeater. That teacher of algebra would not have thought of keeping the girl sauntering, if his daily experience had stretched along through three years of work in mathematics.

The greatest objection to the vertical plan is that it precludes the possibility of teaching children in droves or herds of forty, fifty, or sixty. As teachers discover the possibilities in individuals, they develop what might be termed an educational conscience, and are constrained to give mind a better opportunity.

Ineffectual approaches to subject-matter, methods of treatment of subjects that are evolved out of nothing and lead nowhere, are useless in every stage of education. Elementary and secondary education cannot be differentiated until the second of the two sets of conditions involved in the problem is considered. That set of conditions is named the "course of study." The chaotic situation as regards the course of study has resulted largely from the reaction against the rigid college preparatory requirements that long dominated the ideal of education in the school. The struggle and victory of the scientists in the war against classical learning to the exclusion of scientific investigation have affected elementary education more than secondary. The secondary school snuggled under the wing of the college so long that the college in coming out from the contest with the scientists has greater flexibility than the secondary school. It is the elementary school with its nature study, household arts, manual training, and parents' associations, that has stood for the scientific reformation below the college and has for a long time perplexed the secondary school. The latter has, however, taken on some of the arts of the common people, and has begun to comprehend their significance in education.

The colleges have broken away from their single list of requirements for admission. Today in the more progressive universities there are groups of required preparatory studies should be brought to bear on this problem of saving time, improving the quality of the work, and not overcrowding the children in the elementary and secondary schools. Whether an effective solution will be secured soon or will be delayed years is an open question. The attitude of this Council will have great influence in the decision.

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SOME STEPS IN THE EVOLUTION OF SOCIAL OCCUPATIONS.

VI.

THE attitudes of the child in relation to those of the civilized adult present these contrasts: the child's attitudes are undifferentiated, those of the adult are differentiated; those of the child are idealized forms, whether considered with reference to the past or to the future; those of the adult are real; the attitudes of the child are largely practical; those of the adult, though practical, may, and often do, become intellectual, and hence abstract.

In making use of the materials of the remote past perhaps the greatest mistake that is liable to be made is the failure to recognize that the child's attitudes are dramatic rather than real. In the use of the materials of more recent ages the danger is, rather, the failure to recognize that the child's attitudes are practical in any sense of the word. Too often the child's attitudes are regarded as intellectual from the first, and he is compelled to assume an attitude which he is unable to take. In this way educational forces are diverted from their normal channels and devoted to fostering a juggling with words, a repetition of formulas, a playing with symbols.

Practical activities—social occupations—are so new a feature of public-school work that there are yet many unsolved problems with reference to their place, their form, and their function. When they are mentioned, ideas of the simple household industries, on the one hand, and ideas of the isolated hand-work which is becoming popular in the schools, on the other, are most likely to come to one's mind. But neither of these conceptions is sufficiently comprehensive to include all that is implied in the educational use of practical activities.

The house industries were carried on in the home at a time when society made fewer demands upon the individual than at present. Communities were isolated, and in most respects selfsufficing. Life was simple. There was little demand for special knowledge or skill in the sciences and arts. Industries were carried on in the home for the sake of practical results. The experience thus gained served as a means of interpreting the formal instruction given in the school when schools were established; but neither the teacher nor the parents made any conscious use of these experiences in developing the principles which underlie the sciences and the arts. The demand for the scientific method and for scientific knowledge was not great enough to bring such problems to consciousness.

The question so often raised regarding whether a boy shall be taught cooking and sewing, or whether a girl shall be taught carpentry and metal-work, serves to indicate that we are not yet free from the industrial bias which compels us to interpret results with reference to utilitarian ends. In the introduction of hand-work into the school we have swung to the opposite extreme. Ostensibly it has been introduced for educational ends. In most cases it is planned from the logical rather than from the psychological, the technical rather than the practical, point of view. The isolation thus brought about is completed by the failure to make use of the technique involved in the mastery of processes having other conscious content than that of technique. Such courses, though they may answer to the abstract conceptions of the pedagogue, and serve as a temporary means of facilitating the division of labor and the work of administration, fall wide of the mark. They leave the child quite out of the account. To be sure, the child finds in isolated activities, which call into play certain powers of body and mind, a respite from a program made up largely of intellectual tasks; but this is not enough. The attainment of educational ends surely implies more than a sandwiching of rest periods into a so-called intellectual program, the establishment of certain physical and mental co-ordinations, and the learning of the grammar of a language for which there is no demand. As far as it goes, exercise in technique is well; but unless technical skill finds support in ideas, unless motor activity finds a place with reference to the curriculum as a whole and to the society in which the child lives, the energy which is now being devoted to isolated forms of hand-work will soon be expended in the form of a "fad."

The introduction as isolated activities of such industrial arts as basketry, loom-weaving, pottery, cooking, sewing, carpentry, and metal-work is a failure to make use of conditions for securing educative results. As long as the child's activities are simple and direct, less harm comes from such isolated activities than at a later period; but even at the earlier time they fall far short of meeting the needs of the child. When the child is able to project ends into the future, when he is able to reconstruct past situations and to carry over the embodied truth as a means of guidance in his own activities, to permit conditions in our public schools which keep the experience of the child in the personal, the local, and the material, when he is able to make the transition to the social, the general, and the spiritual, is to do violence to the best thought of the age.

The school presents conditions for a much more vital use of practical activities than we have yet made. It is protected from hostile elements, and surrounded by a veriety of socializing influences; hence surplus energy and leisure are assured. To secure the most complete development of the individual and the most efficient service for society, there is need of incorporating into the curriculum such achievements of mankind as can be appreciated by children. There is need of using a method which will permit the child to make use of the forces at his command in securing such a first-hand experience as will enable him to interpret that which is most significant in community life. There is need of an ideal in harmony with the highest conceptions of civilization, and a consciousness on the part of those who have education in charge of the significance of the work in which they are engaged.

It is thus evident that the introduction of practical activities into the school does not imply that the simple house industries of pats ages are to be carried over without change into the school. Neither does it imply that the child is to be occupied with isolated activities selected from modern processes for the sake of technique alone. It implies rather that the impulses, which originally were produced by industrial activities and which appear as powerful forces in the life of the child today, shall find opportunity to express themselves in forms that appeal to children, and at the same time shall connect with modern institutions which, in a large measure, condition the life of the child.

Early undifferentiated forms of industrial processes which have since been rendered complex are the most suitable occupations for the child of seven years. To select a simple form which has not developed would be to start the child on a road that led nowhere, to keep him occupied with a belated form, or to put him in the place of the adult whose function it is to bear the brunt of the struggle involved in breaking the way into the unexplored regions of thought and action. The various phases of the fundamental undifferentiated industries afford educational opportunities for acquiring an experience fundamental to the future study of the sciences and the arts. When this basis is laid, when the child has followed the development of an industry to a point where some phase of the process becomes so important to society as to have fixed attention upon itself for a period, he can appreciate the forces and conditions which called forth the sciences and the arts. The special problems that thus face the child, the enriching materials that are furnished by the racial experiences in the processes considered, furnish a suitable stimulus to the child's interests which are becoming differentiated.

The best way of introducing practical activities into the school varies with local conditions. That which is to constitute the first-hand experience and that which is to be interpreted by means of symbols can be determined only after a knowledge of the environment which conditions the child's acts.

The stage of development at which the child has arrived is also an important factor in determining the form which the activities shall take. To the child of five or six years, who draws no sharp lines between actual materials and processes, and a dramatization of them, practical activities may well take a different form from what they do when the ideal and the real world come to stand out in marked contrast. Play is as real as work; pantomimic representation is as satisfactory as actual participation. Since the most powerful appeals come from the immediate environment, and since many of the stimuli are somewhat complex, it is fortunate that the child has at his command modes of expression that involve the simplest kind of a technique. Gesture, pantomime, dramatic play of all kinds—all these forms are as well adapted to educational ends within the school as they are to the normal growth of the child when left to his own resources. They are especially adapted to the service of the child at the time when the steps in the process, the relation of means to ends, and the result of the actvity are matters of little moment.

As long as attention is largely absorbed in direct activities, there is little demand for a conscious use of racial experiences. In so far as the materials of primitive life affect the child, it is in an unconscious way. The child's experience is not of a kind to enable him to interpret the achievements of the past. Not until he is able to appreciate means and ends as such does he possess the historic sense to such a degree as to make a conscious use of the materials of the past. It is through the teacher that the lessons contained in historical primitive occupations are to be transmitted during these early years. In so far as the teacher gains the spirit of these lessons, in so far as she applies it in her work with the child, she will allow him to participate in present activities that call for the use of the entire body. She will make sure, on the one hand, that the occupations are of such a fundamental and permanent type as to relate a great variety of impulses that are in need of development; and, on the other, that they organize the materials of the external world with reference to relationships that are vital in the upbuilding of social and industrial institutions. The lesson of the past is best heeded at this time by an apparent disregard for its materials. Time is better occupied in focusing attention upon the direct and immediate problems that involve the use of the materials and forces in the environment than in attempting to utilize the materials of the past before the organs are developed by means of which they can be apprehended. The serious search of primitive people for food is paralleled by the spontaneous play of the child in meadow, field, and pasture, or on the playground, in the vacant lot, or in the park. The hunting dance is paralleled by rhythmic social games which the child invents for the satisfaction of the group.

The organization of the spontaneous activities of the child by means of field lessons, games, and other practical activities is a necessary means of securing the conditions for a free play of the child's powers. It is a necessary means of gaining a rich experience in the processes that are fundamental to community life. Gesture, pantomime, dramatic play of all kinds, construction, observation, experimentation, drawing, painting, modeling, music, language—all are proper avenues for the child's energies to find expression. All contribute something to his growth and to the satisfaction of instinctive attitudes. No one of these activities is of interest at first on its own account, but each is present as a phase of a larger process. From that process the different interests gradually emerge, just as those which represent the sciences and the arts emerged from the industrial activities of the race.

The child of seven years may well begin to make a conscious use of materials of the past. This is the time when he begins to recognize the inadequacy of the means at his disposal to secure a desired end. For this reason he eagerly avails himself of such opportunities as promise to yield him the aid he needs without too great a strain of attention.

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PRIMITIVE HISTORY IN PRIMARY GROUPS OF THE LABORATORY SCHOOL.

II.

THE amount of time to be spent on each stage of this reconstruction of primitive society varies with the experience of the children and teacher. The step in social organization demanded by the change from the wandering hunting life to a stationary life is slight, so that it is hard to make the children realize that man's control of his methods in obtaining food through combination must have vastly improved, or that some specially favorable locality must be found to warrant the assumption of the settling down of a wandering family in a permanent abode. As with all steps in this work, the amount of time in experimentation, in actual construction work with materials, must be of necessity left to the teacher. Children of seven have been found to be very much interested in the subject of underground water, either as related to the formation of caves, or in a later period as furnishing a nomadic tribe with its supply of water on the lower, grassy plain. Some children have been found interested in the nature of the stone in which caves are found, and in the essential differences in the wearing away of a rock by water, as dependent upon the nature of the rock.

From the very beginning the main geographic features, such as in this period of forest life the location of the forest and its relation to water-supply, were of much interest to the children. They experimented with nut seedlings at various times, and cared for the seedlings which survived, unexpectedly, the vicissitudes of a Chicago schoolroom in winter. The dependence for germination of certain nuts and seeds on exposure to a freezing temperature is an illustration of the kind of problem it has been thought better from experience to reserve for a later age. Such facts as the distribution of trees as varying with altitude have been found to be material for these children *only* when in their past experience they chanced to have actually seen the condition controling such distribution; then such general points as that some seedlings could survive cold and exposure, and hence live farther north and higher up on the mountains, seemed to appeal to their intelligence. The way in which the occupation of the people depended upon the geographical area was brought out through discussions in which all their individual experiences were of necessity brought together.

The ideal outline in the teacher's mind was as follows:[1] A mountainous region with forest-covered hills stretching down to a lower level where the forests are confined to the river plains, and the low foothills and grassy prairies stretch downward to the sea. Nomadic hunting life, first beginning in the upper section of the forest, then gradually, as weapons and power of combination advance, descending to the plains and becoming transformed first into the nomadic hunting tribe, combining hunting with a semi-pastoral life; then into the semi-agricultural, as the advantages of the natural grain-producing regions are combined with a roving and hunting life after the harvests are over. This half-way organization merges both in habitat and method of life with the pastoral nomadic peoples and again advances to the agricultural stage and security of permanent habitation in the fertile river valley. Down upon the edge of the sea is found the typical fishing village, where perchance the stress of circumstance forces the development of the trader and organizer of commerce, as typified in Phœnicia, or combined with the semi-pastoral and agricultural habit, as found in the Grecian archipelago. The main geographic ideas which the children work out in this outline are the formation of a river system, the relation of kind of vegetation to the water-supply, and the dependence of the animal life of the region upon this vegetation. Any further geographic knowledge in detail and the particular points picked out for experimentation depends entirely upon the children's local surrounding and previous experience. The statement perhaps can be made that the reproduction on a sand table by the children of the features of the country they are constructing is a safe test of their geographic notions only when they are carefully guarded against misconceptions, especially in the relation of size and distance, by the use of pictures and their own past experiences. Such simple physiographic points as the action of water in cutting away gulleys and ravines, the way in which this rock waste is deposited in the downward course of the stream, involving the formation of beds of sand, sandstone, clay beds, and slate, and the effect of the change of level on the course of the stream, can be given in such a way that they become a part of the child's general experience, as is shown by the fact that he spontaneously uses these terms in a report of what he has seen happening in the swiftly running gutter.

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[1] Acknowledgment is due Mr. Patrick Geddes for suggestions received from a lecture on Scotland as an illustration of the typical historical development of a country.

In the case of the city children with whom this work has been done, the continued interest depends largely on the personal element in the story the development of which they are following. As might be supposed, it has been found that the balance of interest sometimes lies entirely in the personality of the story, and then again swings over to interest in materials and processes carried on in the day-by-day illustration of the story. In one case the chief concern was almost continuously in the things to be done; with another class, in the dramatic and personal, and what would happen next to the particular characters in the story. This difference is probably due to a difference in the personality of the children, as approximately the same methods were used with children of similar environment. As before stated, it has also been observed that, without any apparent reason other than the individual experience of the children, a narrative read was preferred to one which they had some share in creating.

In any stage of this social reconstruction one of the children's main interests, especially in the beginning of the year, is in the life of the child of that time. This interest, though a reoccurring and ever-present one, is not as dominant as might be imagined. The doings of grown-up primitive society are well within the scope of the modern child, and give the freedom which he spontaneously enjoys when he gives himself up to his imaginings of that time when everything will be possible—when he himself is grown up.

Most typical enterprises carried on by primitive peoples are toward the doings of these grown-up people of the past finds its reflection in the interpretation by primitive people of those natural of a kind to employ the child's imagination and satisfy his dominant need of simple motives and much action. This same attitude phenomena which they could not understand.

The child's attitude toward the old nature-myths as the stories which these people told to account for mysterious happenings is of the same kind as toward the fairy-story. And while we find an interest in the stories as told, we rarely have any spontaneous invention of myths to explain natural phenomena. The child's imagination seems to select the activities of the people as its chosen field, rather than the more remote field of personification of natural forces. Unless distorted and made blasé by indiscriminative cramming of fairy-story and myth, the child's natural interests are necessarily objective at this stage.

The dramatic side of the occupational work seems, as might be supposed, much stronger in older children. This dramatic sense appears not only in the interest of the movement of the story and in acting out those events as well as they can, but also in the effort to meet the difficulties they encounter in the story. In trying the experiment of carrying this interest and dramatic expression into the form of a play in which certain events of importance to the tribe were acted out, the children showed an appreciation of two, if not more, of the general principles of the drama. The chief theme of the play was the conflict between two hunting tribes for the possession of a hunting ground. After one or two attempts, they realized that the first part or act must show the causes of the conflict which formed the climax of the play; and secondarily, instead of having the climax come at once, as at first proposed, it would make the action more interesting to have it worked up to, through smaller acts of aggression which would lead to the final conflict in the third act; while the fourth act showed, in a dramatic meeting of both tribes, the final adjustment through the submission of the aggressors. In carrying out any such work as this, as can easily be seen, the children use the same skill and concerted action as are involved in the daily performance of the class work. It has been found that, as interest in the result grows during the year, while personal preference still plays a large part in the choice of work and the assignment of work-fellows, there is a progressive increase in the discrimination of choice made from the side of ability. This kind of dramatic representation of events is of great assistance in the bringing to consciousness of the development of social organization in each stage; for example, the later phases of semi-pastoral and agricultural life, involving as they do the transition from a matriarchal to a patriarchal form of government, develop the fact that leadership, which was given hitherto for reasons of personal bravery or physical endowment, now naturally devolves upon the older people, who have the advantage of long experience and are the possessors through tradition of the experience of former generations.

The final stage attempted is that of the pre-Homeric period, where the chieftain or leader ruled through a council of his fellows. This furnishes many points in common with the children's own method of class government. The change from the communism of the early period, through the growth of individual rights—first in the right of personal property, then gradually extending itself from weapons and ornaments to flocks and herds, and then through the right of continued occupancy of the grazing lands with their wells and water courses—leads finally to ownership of land in the agricultural period. These ideas are, of course, accompanied with much discussion of what is done now in respect to these rights and customs, thus furnishing no slight insight into the functions of those parts of the city government with which the child has come in contact. While these connections with the city life about him are of value, yet the most powerful factor in developing a sense of responsibility along with the sense of individual rights is found in the formulation of certain communistic rights—to school material, furniture, and rooms—along with individual rights and privileges—in order and arrangement of class work, choice of seats, and other such details. As these rights must be respected, not only by the children, but by the teachers, a true democratic ideal has a chance to express itself, along with its inevitable accompaniment of individual responsibility. Possibly the only safe test of progress in the sense of responsibility is found in the difference between the way in which the group at different times in the year meets a trying situation, which in the beginning of the year would have resulted in demoralization.

It will, of course, be objected here that any ordinary child of seven or eight already possesses, by virtue of his past experience, such ideas as these of personal and community rights. But these ideas are implicit with him, just as are his ideas of time, distance, etc.; and he needs to be made conscious of them through use in new situations. It has been found that, as a general thing, children take for granted such rights as individual ownership of weapons or clothes or food, as well as the right through occupancy or discovery. It is only after much discussion that these youthful individualists could be brought to agree that without community of goods life would have been impossible in the early stages of society. One of the most important gains through the development of this sort of consciousness is the early acquiring of the sense that rights and duties are relative, not absolute. Similarly, it has been found that children take for granted combinations of families in clans and tribes. It is necessary to show the gradual development of such combinations through long discussions of what would bring about the earliest consolidations for defense or aggression. The matriarchal order of society seems to be easily taken for granted, while the rise of the patriarchal has to be developed, both in connection with the nomadic hunting of the semi-agricultural tribe and again in the organization of the pastoral people. Thus far it has not been found profitable, principally because the details of organization will in no way correspond to the natural order demanded in school work, to lay very much stress upon the forms of prevailing customs determining the government of such semi-agricultural tribes as the Iroquois nation. Indeed, the general form of a deliberative assembly, in which the right to speak is an inherent right belonging to the elders and must be earned by the young, is the only form of government at all consciously carried out, because of its similarity to the actual class order in school. Such complications as are introduced by the use of captives and slaves, while often suggested by the children, have never seemed worth worth much time and effort.

Thus far experimentation has shown that this work can most easily be carried on by the following distribution of time and method of treatment of the subject-matter: About an hour and a half a day is necessary for carrying the class through the stages summarized to the pre-Homeric period. This hour and a half will, of course, be distributed differently at different times of the year. The general average might be stated as follows: one-half hour for story and discussion of plans of work, followed by at least an hour of constructive or experimental work. This constructive work, of course, varies in its nature. It may be either illustrative of the life of the people which the children are playing, such as the making of the houses in which they lived, the clothes they wore, or the weapons they used; or it may be the carrying on by the child of some of the occupations of that people, such as the threshing of the grain, the grinding by primitive methods, or dramatic representation of their hunting, fishing, or warfare. A very little of the sensational—that is. battle, murder, and sudden death—is more than sufficient.

The occupations involving quiet thought and inventive skill furnish most of the hand-work for the children. As has been stated in the introduction, at least two lines of work involving modern equipment are carried on. Carpentry and cookery go on parallel with the constructive work involved in the primitive history of the children, while in their art and music we find the influence of the ideas they obtain from the primitive history, continually appearing, often without any conscious knowledge on the part of the special teacher. An illustration will be found in the following song, composed by the children and entirely suggested by them, the teacher not even knowing of its connection with their discussion with their class teacher, nor the latter being aware of the composition of the song:

Indians weave pretty blankets and rugs;
Esquimos live near the pole;
The Philippine houses are made all of straw;
And Cave-dwellers lived in a hole.

The Japanese make many beautiful things;
Poor Chinamen live upon rice;
The English people are fond of war;
And Americans all are nice.

For the reasons given in the introduction, much of the construction is with entirely crude material, and selection of the work to be done is made on the basis of the possibility of initiative on the part of the child. The process selected is the simplest and shortest, from the point of view of time, that can be found, and the use of modern methods, simplified and suggested by the children, is freely encouraged. The number of processes and occupations depend of course upon the experience of children and teacher. It has been found best to have the experimental and indoor constructive work involved in such occupations as pottery-making, beginning of textile work, metal-work, and the various processes connected with the preparation and storing of food carried on during the fall and winter terms. It is also a good plan to use the spring term as a time for a summary of the hunting, nomadic, pastoral, semi-agricultural, agricultural, and metal-workers' stages, through dramatic plays carried on out of doors. This involves actual out-of-door cooking, and gives a setting to the garden work and excursions to the park, etc.

The accompanying illustrations will show the way in which the children put in concrete form the physical setting for each people. Many examples could be cited to show that the main test of the success of this work—that is, the carrying over of the ideas gained into an interest and understanding of similar processes going on at the present time—has been fulfilled. One girl, while working at her first clay dishes, after discussion of the very first steps following the hollowing out of the clay ball to make a bowl, evidently going on in her own mind with the conditions now existing, asked many questions and had many ideas as to the way in which pottery-making was now conducted. After going through the school work with metals, one boy constructed an oven at home in his yard, and for more than a year, with the help of his playmates, went on experimenting in the various ways of melting lead and making molds. He also induced his father to take him to a foundry, where he saw iron cast, and is reported as having appreciated and understood what he saw in a way that seemed beyond his years. Another boy remarked, apropos of a school custom which had become a "rule": "That's the way our laws came, isn't it? And school rules are school laws."

In the first attempt to put into map-form the country in which their people were living, the children's initiative was quite limited, and each point needed much discussion and suggestion on the part of the teacher. As an illustration of the degree of independence attained through a year of such work, we might take the construction of a country on the sand table, which involved the use of all the principal facts the children had had, and the different physical settings they had worked out. There was no longer any necessity of the teacher's referring to a general slant of the land toward the sea. The course of the river, coming in through the steep part of the country where the slope is great, was made straight through a canyon, while on the lower sand plain the children, before turning on the water which was to determine the course of the river, declared that they knew the course would be such and such (indicating the winding through the flood plain), placed obstacles where they wanted the river to wind, and planned the location of their village. In locating a clay bed, which at first involved considerable experimentation, they did not hesitate to suggest that this clay might be deposited anywhere along the course where the water formed a pond or lake, or would be uncovered where the land had changed level and the new course of the stream had washed away preceding deposits from an old lake bed. In making the river bed they carefully chose water-washed pebbles. The stones which cropped out on the surface of the ground in various parts of the country must conform in nature to the general outline, the flat limestones and sandstones being placed in the river valley, while the bowlders on the mountain top were chosen from the granite or schists.

The formation of black loam had been discussed in connection with the growth of grain in their semi-agricultural village, as well as in the making of their gardens, so that in the construction of this new country in the spring the children naturally suggested placing a covering of black earth over the sand back from the seashore and up the valleys of the river, to represent the accumulations of past years of vegetable growth. They had seen many sections of soil about Chicago, and in constructing their last country they placed flat rocks to represent rock bed, and the sand on that. One of the children objected, saying that he thought there might be layers of clay coming in between, as he had seen it in the cutting near his home. The fact that clay is much more impervious to water than any other soil has been brought out in many ways, and now, when they met the difficulty of keeping the water of a mountain stream from becoming underground water, as they call it, the suggestion arose that they line with clay the course which they wished the river to follow.

In connection with the construction of the seaboard village, the question came up of the difference between the ocean and the lakes. The children who had been on the sea described the action of the tides, and said that the ocean was not only salt, but bitter. One child then said that the river in going over the land carried away salt from the rocks down to the sea. Another child, carrying on the same thought, said: "Then the water goes away, but the salt does not." We then took up the question of why the sea-water was bitter, and a child said: "There are other things besides salt in the sea; perhaps sugar." All were ready then to try to find an answer to their question, stirring up sand and black earth with water, and then straining it, as they called it, to see what the water got out of the soil. Another question which came up in this connection was, what was concerned in the distribution and formation of the black loam, aside from the action of water; and the question of growth and decay of various plant-forms involved again the part the earthworm plays in the making of soil.

While the children were much interested in the question of how the people manage to navigate the sea, the occupations of the sea-going people were not followed out, lack of background in the children's own experience being here, as always, a determining factor. Nor did it seem best to introduce more than the most primitive forms of transportation, trade, and barter.

One main result gained might be stated as the necessity of the teacher's consciousness of the *importance* of furnishing such material that the processes used spring through the child's initiative directly from the nature of that material and are conditioned by his consciousness of the end.

The result of five years' work on this problem has seemed to indicate that this subject-matter meets the following main requirements demanded in work for the children of this age: First, from the teacher's point of view, it organizes materials and sets the standard of technique within the reach of the child's capacity without in any sense impairing, because of the very contrast, his possibilities for future technical finish. It furnishes simple and definite activities, with plenty of opportunity for making the child conscious of the necessity of plans for the accomplishment of an end. Finally, and perhaps most important of all, it furnishes in a simplified form types of the principal activities with which he comes in contact with his own life. It furnishes, through its analysis of social organization, appreciation of the rationale of the organization he works out in his class, as well as of the organization of society outside of school. Lastly, there is no danger, through too persistent use of imitation, of depriving the child of the initiative and ruining his natural experimental attitude. The beginning of his acquirement of reading and writing can be easily made through his interest in the stories he or others invent, and the desire to keep a record of the work he is accomplishing, while the constructive work, as well as the geographical construction, furnishes many opportunities for the development of the arithmetical sense. If carried on with a sympathetic sense of the child's present, he can be led rightly to appreciate, through this simplification of typical life-activities, much that would otherwise be confused and sensational in his daily experience.

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MODERNIZED ARITHMETIC.

When the troubled educational situation has found its new equilibrium in a thoroughly modern and thoroughly organized curriculum for the elementary school, no subject will be found to have profited more than the arithmetic from the effects of the period of general disturbance and readjustment of levels through which we are now passing. This will be true, moreover, not because arithmetic will have changed its essential character, but because the scale for estimating its value as a school subject will have changed. It takes no seer to discern that the lashing of the waves of popular and semi-professional disapproval of formalism and archaic ideals in elementary teaching must sooner or later wear away the crust of tradition and leave exposed some bed-rock principles of education. Nor is it pure optimism to believe that this period of new educational ideals is near at hand. When it shall have arrived, the old conception that the chief value of arithmetic in the schools consists in the mental discipline it affords will have yielded primacy to the conception that the chief value of arithmetic as a school subject is economic. Arithmetic will in the near future be looked upon as that common school subject which in a pre-eminent degree puts the pupil into an intelligent appreciation and a working understanding of the forces and factors which are shaping community life.

As an ideal this latter conception of the function of arithmetic receives the general consent of the leading educators even now. About the only criticism made against it is the practical difficulty of securing suitable subject-matter and teachers sufficiently awake to the educational needs and possibilities of community life to handle the right sort of problems intelligently in the schoolroom. As a matter of fact, the most pressing need of the time in arithmetical bibliography is a text-book packed with practical problems dealing with the quantitative aspects of school and social environment. Such texts are, however, tardily appearing, and there is every reason to expect them to become plentiful before long. Teachers can render no truer service to contemporary arithmetic than by discovering and publishing new aspects of quantitative study of community life and school environment. Many progressive teachers are engaged in such work, but every grade teacher ought to be engaged in it. To say nothing of the service he might thus render to others, his own teaching would be greatly vitalized through the mental attitude secured by such effort. For, after all, say what we may to the disparagement of the investigator who has never made a special study of the problems of the pedagogue, it has yet to be proved that the investigator whose soul is aflame with a zeal for his science is not the very highest type of teacher. His spontaneous enthusiasm for the truth more than atones for his lack of acquired technique. His pedagogical principles are buried in the subconscious realm, and his practice is the most truly pedagogical of all.

A first prerequisite to putting arithmetic in the grades on an economic basis—*i. e.,* toward socializing it—is to bring elementary teachers to a realizing sense of the high educational value of a mastery of one's environment. A second prerequisite, which is at the same time a prime condition for the successful carrying out in the class-room of the idea just mentioned, is that this conviction shall rest so heavily upon the professional conscience of the grade teacher as to constrain him to identify himself vitally with his environment and to acquaint himself fully with the quantitative facts and factors which have a determining influence on the life of the particular community of which his school is the focus, and also those which have to do with shaping the larger life of the nation. Most of the evils of which the intelligent citizenship of our nation complains have their origin in the fact that teachers are willing slaves of the books. So conservative are the book-makers that the age which called for the solution of new problems must be well advanced, if indeed not wholly passed, before the new problems get to the teaching public in book form. The result is that the public schools that are manned and managed by book-slaves are turning out young men and women equipped to take their places in the life of a bygone epoch rather than in that of the immediate present and future. From such schools the wonder is not that the school is debited with so many failures, but rather that it is debited with so few.

To the student of the present situation as regards elementary teaching, three phases of book-bondage are readily discernible among teachers. First, there are those who will have nothing to do with anything not already down in the books. The percentage of teachers which may be properly classed in this group would seem amazingly large to anyone on first becoming familiar with the facts. Happily, however, the percentage is rapidly diminishing. Secondly, there are those who venture far enough toward the light of freedom to replace certain numbers in problems by numbers more nearly fitting the facts of the community. And, thirdly, there are those who are ready to admit work in arithmetic from sources outside of the book after the validity of such work has been demonstrated in terms of what is already in the book. Then, thanks to modern progress, there is a fourth class of teachers not bookish in any blameworthy sense, which class is rapidly growing, who avail themselves of a text-book when it is a real help to the purpose in hand, and set it aside when it hinders. These are the teachers who use the book, but are not used by the book. Realizing that a good text may give trend and steadiness to the work of the learner, such teachers have no fear of the book, for the reason that they are above it, and have no difficulty in keeping the servant from becoming the tyrant. Fortunate, indeed, is it for education that there is always with us a goodly number of sane teachers, afflicted neither with text-book *mania* nor text-book *phobia,* who see in education something more profound and more potent than knowledge-getting—something the record of which is to be read in the growing powers of the child. Such teachers are the seed-corn of a crop whose fruitage will bless the next generation. They are the harbingers of a new educational era. May their tribe increase!

With the awakening civic conscience of which we are gaining certain glimpses here and there will come a profound socializing of the teaching force in the elementary school. What is aspiration today will be realized tomorrow. Grade teachers will then not be satisfied with a pious wish that they were able to handle their environment in the arithmetic class; they will actually equip themselves for efficient service in this direction. Such subjects as the following will then be regarded as matters of course in arithmetical teaching, and not as mere fits and fads of professional eccentricity. The proper gradation of topics and of the treatment of individual topics, as also the extent to which the study of a particular topic should be carried, must, of course, always be carefully attended to. These important matters are, however, no more difficult with topics pertaining to the life of today than with those relating to the life of a past epoch, or, worse still, to nothing at all that is comprehensible to the pupil.

MODERN TOPICS FOR ARITHMETIC.

1. Meteorology: temperature, rainfall, barometric data; clear, fair, cloudy weather records; and yield of farm products for particular localities and for particular years and periods. (See *Rational Grammar School Arithmetic,* Scott, Foresman & Co., Chicago.)
2. Dairying and grazing.
    - *a*) Butter and milk yield of individual cows, herds, and localities.
    - *b*) Consumption of butter, cheese, and milk of communities and of the entire country. (See *Chicago News Almanac* for data.)
    - *c*) Ranching and beef consumption of the country.
3. Manufacturing industries. (See *Twelfth U. S. Census* and newspaper almanacs.)
    - *a*) Wool, cotton, sugar, iron and steel, and other industries.
    - *b*) Consumption of products of these industries by the country.
    - *c*) Making and refining coal oil, gasoline, benzine, naphtha, etc.
4. Mining industry. (See *Twelfth U. S. Census* for data.)
    - *a*) Coal, iron, lead, copper, zinc, silver, and gold mining.
    - *b*) Ore extraction and reduction.
5. Transportation. (See the *Census;* almanacs; and Thurston's *Economics and Industrial History,* Scott, Foresman & Co., Chicago.)
    - *a*) Transportation by land and by water, and comparative cost.
    - *b*) Street and electric railways. (See *Census Bulletin No. 3.*)
6. Growth and distribution of population. (See *Rational Grammar School Arithmetic,* Scott, Foresman & Co., Chicago.)

- a) Population of the United States distributed as to geographical and political subdivisions.
- b) As to elevation above sea-level and as to mean temperature and rainfall. (See *Twelfth U. S. Census.*)
- c) Comparison of growth of population of the United States with that of other countries. (See newspaper almanacs.)

7. Roads and pavements. (See standard treatises and *Engineering Pocket-Book.*)
   - a) Wagon roads, turnpikes, and railroads; cost of construction, maintenance, and operation.
   - b) Force needed to draw loads over. (See *Rational Grammar School Arithmetic.*)
   - c) Numerical problems relating to railroads. (See *ibid.*)
8. Commerce in the rivers, canals, Great Lakes of the country, and by sea. (See Thurston's *Economics.*)
9. Business affairs. (See *Rational Grammar School Arithmetic;* Beman and Smith's *Higher Arithmetic,* Ginn & Co.)
   - a) Percentage with many other than money problems.
   - b) Interest by methods actually used in business.
   - c) Partial payments as actually used.
   - d) Compound interest by methods in vogue.
   - e) Applications of percentage, as in marking goods; trade discount; bank discount; domestic and foreign exchange; stocks and bonds. (See newspaper quotations.)
   - f) Loan associations and savings banks.
10. Nature study. (See *Rational Grammar School Arithmetic;* Jackman's *Number work in Nature Study for the Grammar Grades,* Macmillan.)
    - a) Habits of animals.
    - b) Planning and seeding a school garden.
    - c) Distribution of seeds.
    - d) Growth of trees and other plants.
    - e) Study of mechanical constituents of soils.
    - f) Movements of sun and moon; length of day, month, and year, studied observationally and from data of patent-medicine almanacs.
    - g) Distribution of sun's rays of heat and light.
11. Physical measurements.
    - a) Growth from month to month and from year to year in stature, weight, girth, chest measure, and lung capacity of children.
    - b) Vital statistics relating to birth- and death-rate of cities. Different cities compared.
    - c) Length of jump; distance of throwing the ball or of putting the shot; throwing at a target.

12. Geometry in the grades. (See *Rational Grammar School Arithmetic.*)
    - *a*) Manual training-scale drawing.
    - *b*) Elements of land surveying and field measurements.
    - *c*) Modeling geometrical forms.
    - *d*) Experimental and constructive work.
    - *e*) Paper folding.
    - *f*) Platting data.
13. Geographical work.
    - *a*) Length, fall and commerce of rivers.
    - *b*) Percentage problems relating to relief of countries and continents.
    - *c*) Percentage of land and water surface of countries and continents.
14. Longitude and time. Local and standard time and date line.
15. Algebra in the grades.
    - *a*) Representation by letters of numbers generalized from arithmetical number, and formulation of arithmetical processes in equations.
    - *b*) Study of equations, showing simple relations between forces and loads needed to draw them.
    - *c*) Use of simple equation in solving percentage and interest problems.

As an aid in the distribution of work on these topics in the different grades it will be well to note that the first conception of number is a group of individuals. Accordingly the number concept has its genesis in counting things, or, what comes to the same thing, in the indefinite measurement of groups of objects. Some time early in the first grade this stage of the number concept naturally passes into the concept of number as an instrument of direct measurement. This stage is reached through the natural craving of the mind for greater definiteness than is possible through counting. These are the two stages of the number concept out of which the notions of arithmetical number and its uses must be evolved, and upon which the tabular machinery of arithmetic must be gotten into working order.

This will require the first four or five grades. In these grades, therefore, the meaning of number and how to use it are the ideas occupying the focus of attention of the pupil, and they should receive chief stress in the teaching. Pupils should be continually employing their number faculty on real problems, the content of which should at first be easily grasped by them, to the end that the emphasis of thought may be on the disengagement of the number concept and its uses from numbered things and magnitudes.

The guiding principle of the first four or five grades in arithmetic—"Employ useful and interesting materials for the sake of the number concept," should be changed by the fifth grade into, "Employ the number concept for the sake of an understanding of useful and interesting material." This shift of emphasis means much more in the arithmetic than is commonly thought. In the latter grades it is important that there shall be some difficulties to overcome.

Indirect measurement, for which the pupil is now ready, should play a leading rôle all through the grammar school. By indirect measurement is meant that sort of measurement in which unknown magnitudes must be arrived at indirectly through their relations to known magnitudes or to magnitudes that can be directly measured. Such measurement has to do pre-eminently with *relationships* among numbers and magnitudes. It is in this work that the pupil comes to an intelligent understanding of number as ratio. The pupil of the sixth grade, if his previous training in arithmetic has been of the right sort, may profitably undertake the study of number and numerical relations of magnitudes on the basis of the ratio idea of number. It is about equally unwise to undertake to teach this idea earlier and not to teach it here. It is about equally stupid to undertake the ratio idea too early and not to undertake it at all. The order of steps in the evolution of the number concept is such as is best exemplified in the physical series: (1) indefinite measurement, (2) direct measurement, and (3) indirect measurement.

For the aid of anyone who has never tried such material in teaching arithmetic as is advocated in this paper, and also to give an example of how such topics as the foregoing may be handled to secure connected thinking on the pupil's part, without the sacrifice of needful drill, the subject of street and electric railways is selected for treatment here. The data are taken from *Bulletin 3* of the United States Census Office. An important feature of the development of such topics as this in the arithmetic is, we insist, in the connectedness and sequence of the work. The customary scattering problems of the arithmetics secure variety at the expense of connected thinking—rather an expensive price to pay. Finally, no teacher will make the mistake of thinking this topic must be worked out as fully as is here given with poorly prepared classes. It is developed with some completeness here to show what may be done with strong sixth- or seventh-grade classes in the way of correlating arithmetic with matters of real social concern.

ILLUSTRATIVE WORK.

1. The Chicago & Joliet Electric Railway Co. uses 46.19 miles of principal main track, 14.40 miles of secondary main track, and 2.30 miles of sidings and turnouts. What is the total mileage, and what percentage of the total is each kind of track?
2. 38.92 miles of this track is owned and the rest is leased by the company. How much is leased? What percentage of the track is owned? leased?
3. 39.13 miles of the track lie without the city limits. What percentage of the track lies without the city limits? Within the city limits?
4. The maximum weight per yard of rails used is 106 pounds and the minimum is 60 pounds. The heavier weight of rail is used within the city limits and the lighter is used wthout. Fnd the total cost of rails for the road @ $31.75 per long ton (2,240 pounds).
5. The total length of the 27 bridges owned by the company is 800 feet. What is the average length of a bridge?
6. 31.51 miles of the trolley wire are supported by a span wire, 13.05 miles by a side bracket and 1.63 miles by center poles. What percentage of the whole is supported in each way?
7. There are 53 trolley poles per mile. What is the average distance apart of the poles?
8. The company uses 32 closed and 16 open passenger cars, 24 freight cars, and 4 open and 4 closed combination passenger and freight cars. What percentage of the cars are combination cars? Closed passenger cars? Freight cars? Open combination cars?
9. 64 of the cars are equipped with hand brakes and 16 with electric brakes. What percentage of all is equipped with electric brakes?
10. In 1902 the road carried 4,439,692 fare passengers and 575,220 transfer passengers. The fare passengers comprised what percentage of all?
11. Find the number of fare passengers per mile of track.
12. The total number of miles run by passenger cars was 1,346,654. How many fare passengers did this give per mile of passenger-car run? How many miles run did a passenger car average?

13. During the year there were 71 passengers injured and 1 killed; 13 employees injured and 3 killed; 15 other persons injured and 2 killed. Find the total number of killed and wounded, and what percentage this number is of the total number of passengers and employees (1,360) carried.
14. The total number of passengers carried, killed and injured by all street and electric lines of the United States in 1902 were 4,809,554,438, 1,218, and 47,429, respectively; of employees the corresponding numbers were 133,641, 122, and 26,690, respectively. There were 831 other persons (not being carried) killed and 17,040 injured. Find the total number of the killed and the total number injured, and what percentage each is of the total number of passengers and employees.
15. The table given here shows the distribution of street and electric railway traffic with reference to the principal geographical divisions of the United States in 1890 and 1902. Fill out the blanks of the table and compute the percentages of increase in the numbers of the blank third, fourth, and fifth columns. Tell what these percentages signify. In which geographical division has each percentage of increase been greatest? Least?

TABLE I.

STREET AND RAILWAY SERVICE IN RELATION TO GEOGRAPHICAL DIVISIONS OF THE UNITED STATES.

Division	Year	Population (in Millions)	Passengers Carried (in Millions)	Average No. Rides per Person
North Atlantic	1902	21.05	2,618.53	——
	1890	17.40	1,141.19	——
Increase		——	——	——
Per centage of increase		——	——	——
South Atlantic	1902	10.44	332.54	——
	1890	8.86	101.65	——
Increase		——	——	——
Percentage of increase		——	——	——
North Central	1902	26.33	1,344.00	——
	1890	22.36	538.31	——
Increase		——	——	——
Percentage of increase		——	——	——
South Central	1902	14.08	210.10	——
	1890	10.97	98.01	——
Increase		——	——	——
Percentage of increase		——	——	——
Western	1902	4.09	304.38	——
	1890	3.03	143.86	——
Increase		——	——	——
Percentage of increase		——	——	——
United States	1902	75.99	4,809.55	——
	1890	62.62	2,023.01	——
Increase		——	——	——
Percentage of increase		——	——	——

16. Study Table II., fill out the blanks, and tell what the numbers you fill in mean. What change is noticeable in the various kinds of motive power since 1890? Which kind of motive power promises to supersede all others for street-railway service in the United States?

TABLE II.

DEVELOPMENT OF MOTIVE POWER OF STREET RAILWAYS OF THE UNITED STATES FROM 1890 TO 1902.

KIND OF POWER	1902		1890		PERCENTAGE OF INCREASE OR DECREASE	
	No. Companies	Miles of Track	No. Companies	Miles of Track	No. Companies	Miles of Track
Electric..........	747	21,920.07	126	1,261.97	——	——
Animal..........	67	259.10	506	5,661.44	——	——
Cable............	26	240.69	55	488.31	——	——
Steam............	9	169.61	74	711.30	——	——
Total in U. S...	——	——	——	——	——	——

17. Find the total number of employees of street and electric railways of Illinois and of the United States, and find the average yearly wage for each class of employees enumerated in Table III, which contains the data for 1902.

TABLE III.

EMPLOYEES OF STREET AND ELECTRIC RAILWAYS OF ILLINOIS AND OF THE UNITED STATES.

CLASS	ILLINOIS			UNITED STATES		
	Number	Total Wages	Average Annual Wage	Number	Total Wages	Average Annual Wage
Switchmen.........	96	$ 62,457	——	1,198	$ 728,975	——
Road and track men	603	346,333	——	11,474	5,511,425	——
Hostlers and stablemen............	107	59,912	——	1,345	813,425	——
Line men..........	97	71,274	——	2,288	1,553,478	——
Engineers.........	104	92,442	——	1,751	1,527,793	——
Dynamo and switchmen............	183	109,655	——	1,167	761,304	——
Electricians........	67	47,711	——	1,150	901,524	——
Firemen...........	191	124,463	——	2,694	1,735,647	——
Mechanics.........	732	498,597	——	9,197	6,312,119	——
Lamp trimmers	14	7,405	——	338	197,254	——
Other employees....	2,348	1,118,681	——	16,137	8,495,983	——
Totals.........	——	——	——	——	——	——

18. How do the average annual wages for Illinois and for the United States in 1902 compare with the wages of men of the same class in your community?

In all such work as the foregoing due regard must be had to movement and arithmetical unity. The unity which is prominent in the study just outlined is the economic significance of such railways in the development of our country. This unity will hardly be lost sight of, since it is the most immediate, the most concrete, and is the unity in which the pupil's thought and interest are centered. It is, indeed, this very unity that puts purpose into the study. But *arithmetic* must also be taught, and whether it be taught incidentally or for its own sake (if the latter were possible), it is unfair both to pupil and to subject to blind the learner to the only thing which can give arithmetical purpose to his effort; viz., the relation of the quantitative content of the subject-matter to the science of number. At the close of such work as the foregoing illustration calls for the arithmetical principles should be clearly brought out, that the pupil may not fail to see what he really had to do, and what it is he must master if he wishes to augment his power to do similar work. In our *rational* recoil from the study by immature pupils of a formal subject for its own sake the writer has seen more than a theoretical danger that we may go to the *irrational* extent of failing to teach arithmetic at all. This would be followed by another swing of the scholastic pendulum back to dead formalism, and everything would then have to be gone over again. If however, a study of the kind illustrated secure sufficient drill in operations with decimals and in finding percentages, the next topic should be selected with a view to teaching and drilling in other necessary principles and processes. It is well for arithmetic teachers never to lose sight of the fact that their office is not to *train experts,* but to *educate youth.* Education means movement under the stimulus of purpose, and to be educative arithmetical teaching must not lack in either unity or movement.

G. W. MYERS.

THE UNIVERSITY OF CHICAGO
College of Education.

COURSES IN THE TEACHING OF NATURAL SCIENCE IN THE COLLEGE OF EDUCATION.

THE courses in natural science offered in the College of Education are intended distinctly for those who desire professional training as teachers. They all assume, at least, that degree of academic knowledge of subject-matter on the part of the student which will enable him to grasp with some clearness the inter-relations of the great subdivisions of science. They also presuppose that maturity of mind and experience on the part of the students which will enable them to take up with intelligence the study of the relations of the various subdivisions of subject-matter to the needs of pupils ranging from the kindergarten to the college.

Careful personal inquiry, therefore, rather than a formal examination, will be made into the merits of each case, with the purpose of determining what course should be taken, and with a view, also, to finding out what further academic preparation, if any, may be necessary.

To this end, the various courses are planned as consistent parts of an organic whole. In Course A, intended for high-school graduates, two and one-half science courses are prescribed. In Course B, intended for those who, in addition to a high-school course, have two years of college work to their credit, one and a half science courses are required. Just what these courses shall be will be determined in each case by the previous preparation and experience of the pupil. They will be chosen also with a view to forming proper relationships with the other subjects or any special course that the student may be pursuing. The courses, in addition to those required, are offered as electives. They are intended to give further training to those who desire to prepare themselves for special work in the grades, either as teachers or supervisors, or who may be preparing to teach science in high or normal schools. In the courses offered, an effort has been made to develop a plan of teaching as a whole which shall be in acordance with the principles of psychology and pedagogy. So far as this is true, the plan should also meet the practical needs of the pupils for a knowledge of nature in their daily living. The earlier courses are devoted to an investigation of the general experience which children acquire in their direct contact with nature. While this experience is vague and lacking in detail, it is nevertheless well ordered and consistent. Nothing could be farther from the truth than to suppose that the mind of the child is in a state of confusion as regards the facts and phenomena of nature. It is true that the reasons for things observed are not distinctly formulated in the young mind, but there is nevertheless a general appreciation of natural causes which renders the nature-picture rational.

The preliminary courses, therefore, deal with those larger aspects of nature with which children at first become acquainted. The field work involved in Course 81 is directed toward a study of the region, considered as a whole, which lies adjacent to the school, and which depends for its character upon its antecedent and present relations to glacier and lake. It further involves a study of the causes which have led to a subdivision of this entire area into smaller units, each of which has something of a distinctive character of its own. Collections of specimens of soil, rock, plants, and animals are made in sufficient quantity to enable the pupils to make an intelligent comparison between the areas, one with another.

In Course 82 some particular area is selected for a more detailed study. An effort is made to discover the nature of the general and special problems which must be solved by the animals and plants that are found. This leads to a study of the temperature of the air and of the soil at different depths; to a study of moisture—rainfall, quantity of water present at different times and depths in the soil and in the air; to a study of sunshine distribution in the various seasons and at different hours in the day. The various problems are worked out to definite and quantitative results from observations and measurements made on the grounds and by the necessary experimental work in the laboratories. Collections are made, and attention is given to a general consideration of questions of adaptation and structure.

Courses 83 and 84 pursue in greater detail a study of the subjects derived from those preceding. Course 83 deals especially with the biological aspects of nature study, and it involves such work in dissection as may be necessary to acquaint pupils with the gross internal structure of those forms of animal and plant with which they have been made familiar in a general way by previous study. The aim is to assist the students in the development of a plan for giving their future pupils an intelligent idea of the great functions and chief structures of the animal and plant bodies, thus laying a proper foundation for physiology and hygiene and general biology.

Course 84 seeks to develop a plan for introducing the pupils directly to some of the more obvious relations between the organic and inorganic divisions of nature. It includes a general study of the more easily determined physical and chemical properties and constituents of minerals, soils, and plants; also a study of such problems in heat, light, sound, electricity, and mechanics as have obvious bearing upon human life and welfare.

Course 87 deals with special experimental work of a historic character which will throw light upon the development of modern appliances found in human industries at the present time.

Course 85 is historical in character, and is based upon observation, readings, and lectures. Such works as those of Darwin, Huxley, Haeckel, Spencer, White, and others are used as references, with a view to giving the student a general view of the development of scientific conceptions as they stand at present. An attempt is also made to work out some of the more important bearings that these conceptions have upon the social, economic, and moral questions of the day. This is done in the belief that the training of a teacher is not complete unless special attention is devoted to a study of the principles of evolution as applied to the development of character in youth. Teachers are but beginning to recognize that physical development is a process of evolution;

they do not as clearly recognize that conduct is the result of the same slow process. This course, therefore, is devoted mainly to the organic and necessary relations which the study of nature bears to character as the true and safe basis for conduct.

Course 86 is devoted mainly to the broader pedagogical relations of science. One of the great obstacles in the way of the introduction of the study of nature into the schools is the feeling that in some way it will result in driving out of the curriculum, or at least in weakening, the work of some of the studies admitted to be essential. Although the history of the nature-study movement for the past ten years shows that this fear is not only groundless, but that nature study actually demands more and better work than ever before in other related subjects, the task of properly correlating all the subjects in the curriculum has not been clearly understood. This course will involve, therefore, a history of the movement, a consideration of a proper evaluation and place of studies, and a study of the changed and changing conditions made necessary by the great influx of new subject-matter that has recently come into the schools.

Corresponding to the broad presentation of subject-matter contemplated in these courses, there will be the same careful attention given to the various modes of expression. The different modes of expression are the recognized means whereby the image roused by presentation is limited and defined. The students will, therefore, be called upon for such work in drawing, painting, modeling, making, and writing as may be necessary properly to develop the subject with children. Observations will be constantly supplemented by reading, and due attention will be given to the selection of reading matter of an appropriate character. Number and form will be employed also from the beginning, in the determination of natural quantitative relations. The proper use of the latter subjects is absolutely necessary in the development of some of the most striking and beautiful of nature pictures. Their long isolation from the subjects in the curriculum and from the practical affairs of life, together with the blind devoteeism of most teachers to endless drill upon empty processes, renders it extremely difficult to get students to study intelligently the relations of mathematical subjects to the necessities of image growth. It is small wonder, then, that while these conditions last it will be difficult to detect any improvement in subject-matter and in methods of instruction in these branches when such students become teachers.

In addition to the field and class-room work required in the various courses, opportunity will be offered for judicious observation and teaching in the elementary and high schools under careful supervision, counsel, and criticism. A considerable amount of time will be given to a consideration of this aspect of the teachers' preparation by round-table and seminar methods. This phase of the work, which will actually constitute the laboratory exercises of the courses, will be adapted, as far as possible, to the individual needs and qualifications of the different students.

The principal test as to the value of the work accomplished by the students who take these courses will be found in the evidences that the pupil can produce to show that he is able to teach and supervise the work in nature study and the elements of natural science in elementary, high, and normal schools. These signs of the student's professional merits will be gleaned from the exercises in the class-room and field, from the skill he shows in being able to express himself clearly in discussions, from the plans he prepares as a basis of his teaching, and finally from his poise and general effectiveness as a teacher before his class. Above all else in importance stands the character of the student; and these results will all be studied, therefore, in the light of his motive. If the student be lacking in true nobility of purpose, his preparation will always be superficial, and no amount of formal training will ever develop him into what the world really needs—a conscientious and efficient teacher.

WILBUR S. JACKMAN.

THE CORRELATION OF DRAWING AND MANUAL TRAINING.

THE subject of my paper today—the correlation of drawing and manual training—is not a new one. There has been for some time a desire on the part of our best supervisors of both branches for a closer affiliation and a more hearty co-operation; and already in the work of some of the larger cities the influence of one upon the other is strongly felt. But the last word has by no means been said. In some of the other cities and in places where the work is new, drawing and manual training have each their isolated place in the school curriculum; and too often the teacher of drawing undervalues the work of the manual-training teacher, while the manual-training teacher has a little secret contempt for the drawing teacher's talk about "art," "art feeling," and the like. That this is not the ideal condition I am sure we all agree, and the purpose of the paper and the discussion afterward is to see what we can do to better conditions and to find out why drawing and manual training—two members of the same family, sisters in fact—cannot be on terms of greater intimacy, more mutually helpful. As manual training is the younger and perhaps not quite so well known member, I would call your attention to a few points concerning its history, its present aspect, and its relation to drawing.

The growth of manual training has been from two distinct sources, representing opposite extremes of thought. It has grown, on the one side, from the technical school, and, on the other, from the kindergarten. The manual training of the technical school is purely utilitarian, while that springing from the kindergarten came purely as an educational idea. In the union of these two growths we have manual training in its present-day aspect—not, on the one hand, entirely technical and utilitarian, nor, on the other, as distinctly educational as it will be when it is more permeated with the spirit of the kindergarten, and when the methods of such pioneer workers as Dr. Runkle, Dr. Woodward, and Dr. Belfield join hands with the thought of such thinkers as Dr. Dewey, C. Hanford Henderson, Stanley Hall, and others.

The high schools were the first public schools to introduce manual training, and they followed the methods used in the technical schools. The object was to provide for the high-school boy a more useful and lucrative occupation than that of clerk or bookkeeper, which were about the only fields open to the average high-school graduate. From the high school manual training gradually pushed its way down into the grades, borrowing in too many instances the high-school method of class instruction and the making of exercises.

From the opposite extreme, the kindergarten, very much and very important manual training has been taught, although not technically considered as such. The activities of the kindergarten —or the "manual training of the kindergarten," as it might be called—is entirely lacking in a commercial or utilitarian idea, and is solely for the development of the child; so much kindergarten work is ideal manual training, as clay-modeling, free paper-cutting, paper-folding, mat-weaving, etc.

This kindergarten manual training has been of infinitely greater educational value than the more technical kind which found its way from the technical schools to the high school. Of all forms of educational manual training the most valuable, it seems to me, is the work in clay-modeling. Work in no other medium supplies such perfect training for the senses of sight and touch, and develops such a conception of proportion, form, and beauty of line. If I could employ but one medium in my teaching, I would certainly choose this one. Free paper-cutting is a fascinating form of manual training, and when colored paper is used, the delight of the little workers is proof of its value. The more exact forms of this elementary manual training are paper-folding and cardboard construction. I believe in mechanical accuracy in its proper place, but I do believe there is a more important accuracy to be striven for in the first four grades of school work—viz., free-hand accuracy. I wonder why so many teachers consider it necessary to make working drawings with ruler and compass in order to make them accurate, when a training of the eye and a study of proportion might be accomplished at the same time.

If I were called upon to give my opinion as to which class of teachers has done the more for manual training, I should have a difficult question to decide, for the service of the drawing teachers in the cause of manual training has been great. They have commenced at the right end, and their teaching has had a truly educational motive—the development of the senses of sight and touch; while the manual-training teachers have not always kept the educational motive in mind, and have concerned themselves too largely with merely technical skill. Each class of teachers, however, has been enthusiastic and has done much to bring about the condition of things which we have at present. Certainly this condition is hopeful, and the future points to better and still better things, as our work becomes known throughout the length and breadth of the land. But the end to which we are looking cannot be gained unless we look at our work in the broader sense, realize that we teachers of drawing and manual training are working for one great end, the educational development of the child, and join our forces that we may work hand in hand. I have letters from a number of men well known in educational work, touching this matter of a union of drawing and manual training, and what they say will have such force with you that I take the liberty of reading extracts from their letters.

Dr. Haney, superintendent of manual training and drawing of New York city, says:

> Much of the teaching of design can best be taught in its direct application, as applied pattern or as structural design, to things to be made. Much of the talk of teachers of drawing about art is loose. With a definite end for the teaching of the laws of beauty, such teaching becomes concrete, not abstract. Beauty in common things, concrete things, can best be taught by the making of such things. The points then come home to the child.

Mr Upton, supervisor of manual training, Buffalo, writes:

> Our educational processes will never produce their fullest results till the lines between subjects are broken down. Art without expression which

hand-work affords is superficial, and hand-work without the spirit of beauty will always be mere work, nothing higher. Artists have been mostly paper and paint artists, and manual-training teachers are sticking too closely to what they have been taught. Both are now reaching out into the field of the other, and good must come from these investigations.

From C. Hanford Henderson, a man who has written much of value on educational topics, comes this:

The two branches are and ought to be very closely related, and the teachers of them could gain much, I think, by coming into neighborly touch. This alone would be sufficient reason for such a union, but there seems to me other arguments as well. Both drawing and manual training are now highly developed specialties, and the tendency of every specialty is to produce a certain apartness which neither the specialist nor his subject can well afford. We need to be brought into closer touch with other related effort to escape the danger of getting things a little out of proportion. It seems to me, too, that such a union movement would accomplish an increased amount of good without a corresponding increase in the machinery of organization.

The president of the Milwaukee Normals has this to say:

Drawing can never accomplish its largest good divorced from constructive work, and it is certainly true that constructive work is of little value without drawing. The teachers of these branches should know each other and each other's work.

From the supervisor of manual training, Boston, we have this word:

We have just begun the practical correlation of drawing and manual training, in which both departments join.

Superintendent Balliet writes:

It will be very valuable to have a joint meeting of the drawing and manual-training teachers. I should go farther and say there ought to be a meeting of these teachers, the teachers of music, and the teachers of literature, to discuss in the broadest way the problem of art education. To have drawing teachers assume that art education is merely drawing is to narrow the subject in a most unfortunate way.

You will be interested in the thoughts of one of the pioneers of art education, Mr. John S. Clark:

I beg to say that I am decidedly in favor of uniting the forces of the art and manual-training teachers. In the art movement that is to come, great attention is to be paid to the subjects of design, through putting the work of design on principles rather than upon mere caprice or whim, and the

execution of design according to principle is going to call for a good deal of manual training, while the study of the application of design to use and material is going to be a great help for manual training.

These are only a few of the many letters received expressing an interest in the matter.

As a rule, criticism is merited, and when the feeling becomes general that there is something wrong with art education and manual training, it is not wise for the teachers of these subjects to disregard these signs.

A few years ago a good drawing supervisor was teaching clay-modeling, free paper-cutting, and paper-folding, using colored paper in teaching design, and was doing something in cardboard construction by using pattern sheets, and was making use of the geometrical solids; all of which was good drawing and excellent manual training. This practical and very important side of art education has been almost dropped. Twelve years ago, at the first meeting of the Iowa State Drawing Teachers' Association, there were excellent exhibits of clay-modeling. We look in vain for such exhibits now from the public schools. Free paper-cutting and colored-paper work have given place to brush work. Pattern work has been almost entirely dropped, while thousands of dollars worth of geometric solids are covered with the dust of five or six years. In place of this we have a great deal of nature-drawing in the lower grades with water color, and ink and brush, story-telling with the brush and colored crayon, pose-drawing, etc. The same sort of work is carried on through the grades: landscape from the imagination, pose-drawing with the brush, design in water color, object drawing "in mass," dark-and-light effects after the Japanese, etc.; all of which is excellent, and has come to save the work from the hard, inartistic, and conventional sort of way into which it was in danger of going. But is not the pendulum in danger of swinging a little too far in that direction? The drawing teachers, in their anxiety to make the results artistic, to have "free work" and not to cramp their pupils, often sacrifice truth, especially in much of the nature work seen. As the pupils approach the eighth grade, much of the nature work should be done with the pencil point, and time should not be lost by making the lessons too elaborate. The pupils should give more time for study and comparison, with opportunities to try again.

The drawing teacher who is so permeated with the art idea that she has not time to teach clay-modeling, free paper-cutting, cardboard construction work, and the legitimate use of the geometrical solids in teaching the pupils how to see and study, is doing a great deal toward meriting such accusations as Dr. Haney's: "Much of the talk about art is loose."

Please do not misunderstand what I have said about drawing, for I thoroughly believe that the subject is being better taught every year; but I feel that very important forms of drawing have been disregarded in recent years.

Manual training has been making great strides during the last ten years, although there are many false methods of teaching yet to be rectified, such as beginning the work in the high school, and basing the method of teaching on that of the technical schools, employing artisans as instructors instead of trained teachers, and trying to make manual training an end in itself instead of a means to an end.

I asked the assistant superintendent of the London School Board Manual Training Department what in his judgment was the most important thing in manual training, and he answered: "Tool manipulation." The London course of study shows the same answer. The London boy certainly does know how to use his tools, but Mr. Barter's teachers are giving the same exercises and models that were in use ten years ago. His teachers are almost all artisans, with very meager conception of the educational value of their teaching, and, as far as I could see, manual training was an end in itself.

A number of our high schools have similar courses. "Tool manipulation" is the watchword. A set of graded exercises is worked out by each pupil, followed by completed models, or these models are made, alternating with the exercises. There is no beauty in the lap joint, or in fact in any of these exercises, and it is not surprising to find the models in such a course as devoid of beauty as the exercises with which they alternate. In most cases every line and angle can be tested with the rule and trisquare, and the series may justly be called a carpenter's course. Need I say that right here is a field for the drawing supervisor?

In strong contrast to this, and directly opposite to it in method, is the Swedish sloyd. This handicraft was practiced for three hundred years in the Scandinavian countries before Dr. Salomon adapted it to the needs of the schools of Sweden. In its original purity it possessed high educational merits, for the articles made were designed by the maker, and were for use and ornament in the home, and not for sale. Dr. Salomon's adaptation has preserved this educational feature in theory, if not in actual practice, as the sloyd course is based on a series of exercises which are taught while the pupils are making useful models. These models may be as varied as the minds of the workers, and a hundred different localities might all be teaching sloyd without duplicating a single model, while a single teacher may have a group of a dozen models for each exercise, and, better still, the pupil may design a new model if he can make it simple enough. Here is another large field for the drawing teacher—constructive design.

In the course at Oshkosh each pupil designs a model to take the place of some model in the course four times each year; and at all times he is at liberty to design his own model, should he so desire.

It is this sloyd which has appeared in the United States to fulfil a mission, and to take up and apply in the grades the educative principles of self-activity which are the spirit of the kindergarten. The influence of sloyd is entirely changing the methods of teaching in such schools as Pratt Institute and Teachers College, and there is growing up an American educational manual training to take the place of the old methods. This is a combination of the spirit of the kindergarten with the methods of sloyd, in addition to a third element, which is purely American, and comes to us from the colleges, and from the investigations of such men as John Dewey, of Chicago. Through this third element manual training will eventually relate itself to everything in the school curriculum; but it must first relate itself to drawing, or "art;" for it still lacks much of the spirit of beauty. Especially in the field of invention and design our present manual training shows its weak point. A pupil cannot design a good model without knowing the difference between good and bad constructive design, and when the manual-training teacher cannot tell the difference, we have a deplorable state of affairs. When we go one step farther into the field of ornamentation, we enter the slough of despond—a poorly designed model is mutilated by a hideous reproduction of Pharaoh's horses, or a Rebecca at the well, burned in an atrocious manner; and this sort of work the manual-training teacher calls "pyrography." Poor Pharaoh's horses could not be a more pitiful sight had they been literally driven through fire. We need the aid of the drawing teachers to help us to see what good constructive design is, and when this will be enhanced by simple, tasteful decoration; and the drawing teachers need our help in order to have something of this kind to design and decorate.

Says Henry T. Bailey:

> There is no room in the elementary schools for both drawing and manual specialists. Teachers of manual arts in the lower schools will ultimately become teachers of manual arts specializing as artists in the high schools, or teachers of manual arts specializing as craftsmen in the high schools. Teachers of tools and teachers of theories are equally undesirable. Teachers who can use tools well, but without taste, and teachers of taste who can do nothing themselves, are blind teachers of the blind.

Dr. William T. Harris says:

> I am heartily in sympathy with the ideas expressed in the circular. The getting up of traveling exhibits and sending them from place to place is a piece of missionary work which will bring forth good fruit. But the best idea yet suggested is the union of the manual-training and drawing departments. Manual training has, I think, suffered somewhat since its first beginnings from a separation of its courses of study from the fine arts. Ornamental products always take the market away from the merely useful products that neglect ornament.
>
> In connection with manual training, art should be taught in such a way that every pupil will learn something regarding the principles of good taste

in the arrangement of his materials and in the form and efficiency of his work.

It would double the value of manual training if pains were taken in this matter of good taste as to form and arrangement. I therefore wish you success in the proposed movement.

Mr. Richards, of Teachers College, adds:

Among all the possible correlations of school studies none is so natural and essential as that between construction work and art in structure.

Colonel Parker said:

These two lines of work are essentially one. Teachers have made a separation between them; they are one to the child. . . . . We manual-training workers have been thinking of ourselves as outside the field of art, but, as a matter of fact, we are constantly exerting an influence, good or bad, whether we will or no.

Every constructive project is a concrete example of form, proportion, and color of a positive character. Such work may become, in my judgment, the most powerful æsthetic influence within the possibilities of the school, and the realization of this possibility at the present time, it seems to me, means the co-operation between the drawing and manual-training teachers of the kind suggested for the new association.

In closing, let me repeat and emphasize Mr. Bailey's thought:

There is no room in our elementary schools for both drawing and manual-training specialists. Teachers of tools and teachers of theories are equally undesirable. Teachers who can use tools well, but without taste, and teachers of taste who can do nothing themselves, are blind teachers of the blind.

There is one solution for this problem: Drawing supervisors who neither understand how to teach the use of tools, nor how to use them, should attend summer manual-training schools until they acquire this knowledge; and manual-training teachers should study drawing in the same way. All of our large cities and normal schools follow the example of New York and place drawing and manual training under one supervision. This means that the supervisor must know drawing and manual training equally well. It would be unfortunate for a school to have a supervisor who would disregard the claims of either subject. It would be possible for such schools as Teachers College, Pratt Institute, and the Art Institute of Chicago, by making their course three instead of two years, to graduate teachers who could supervise both branches.

L. D. SUMMERS.

BASKETRY.

THE work outlined in this article was given to eight-year-old children in the autumn, because of the abundance of material at this season. Indian weaving and basketry were selected for this age, because on the constructive side, in the development of appliances, they naturally follow the other primitive work. They also bring the children in touch with the life of the people they consider at this time in their history.

The same method was followed in the basketry as in the primitive work; that is, the materials used furnished suggestions in æsthetic ideas, technique, and construction. The children used natural materials which they collected for themselves, gathering grasses during the summer, and making excursions in the autumn to the neighboring marshes. The possibilities of the work vary, of course, with the locality; but if the children are encouraged to collect their materials, immediately a broad field of observation is opened to them. Much more is gained than the technique of basket-making, or the study of Indian basketry in itself; the latter might furnish sufficient material for a collector or a connoisseur, but has little meaning for children.

In selecting material suitable for basketry a study can be made of the rushes, sedges, and grasses gathered, their condition of growth, and their general position in plant life. There are so few interests to carry a city child into the country that if the gathering of the grasses gives that impulse, it makes it a connecting link with a new world. The grasses are incidental perhaps and the child becomes lost in contemplation of all the living things which the particular region affords. He goes not so much, after all, for the facts, or the new materials discovered, as for the sake of fresh, healthy, and lasting impressions received, and the consequent enlargement of his point of view.

Often during the summer season children spend their vacation in different parts of the country. From one class it might be possible to secure grasses from California, Kentucky, Tennessee, the New England coast, or from regions along the Great Lakes. In this way grasses of many sorts may possibly be studied. The point of contact with different regions through the work with these grasses awakens an interest in the children in an environment other than their own, and broadens their horizon.

The care and preparation of the grasses carry the child to a further appreciation of their quality and beauty than he gets from a mere understanding of their application. In drying the grasses their constant change and variety of color suggest different modes of working toward securing whole series of colors. Through the greens, browns, and yellows which naturally appear, the child may be led to vary his process in such a way as to produce infinite numbers of shades from all of these colors.

In working in an intimate way with the grasses of his neighborhood the child comes to know the exquisite colors and quality of textures in natural plants, and refuses to accept the monotonous uniform coloring given by aniline or vegetable dyes on a dead material which he is told grows "somewhere"—in Madagascar perhaps. The hue and cry against aniline colors is often regarded as a pose of "arts and crafts" enthusiasts. But when one realizes what opportunities are lost through the use of this prepared material, a justification of successful form and color combination would never be accepted.

The child's finished product is perhaps crude compared with the basket or mat made with prepared material, but what he gets from it is infinitely more worth while. This product contributes to an appreciation of nature, and through the control of nature's material he realizes the pleasure of artistic creation. It has brought something into the life of the one who made it. It is not a dead article, made with countless mechanical stitches, which has neither social interest based on the life of a people nor has contributed to the child's own experience. The making of a basket in many cases begins and ends with the "stitches." If the object of the basket is to teach stitches, raffia, or any as excellent material, serves the purpose. But why not teach sewing outright, which is surely more useful, and which serves the educational purpose as completely? Learning stitches is a simple matter, and after this is done there is little place for basketwork in the school, unless the undertaking is carried farther and the child derives from it something more of what the people got who developed the art.

The baskets can first be produced for form and color effects, using coarse material and a simple mesh or stitch, that the child may not be lost in the mechanical effort of weaving; but his interest in the basket as a whole must be held; and this principle in art instruction can be used with profit throughout the development of basketry, whether it be considered as a craft or as a means in education.

The change of color in a grass, introducing incidentally spots or lines of light and dark, suggests the idea of decoration, and consequently the combination of grasses in different colors to secure effects in design. If the attention is given first to form and color, the experimentation upon different grasses soon carries the child to the idea of new weaves, and to the discovery that these must be adapted and modified to suit the material. The typical weaves can be given, and some knowledge of how these are varied, in order that they may be used, not only in the construction of baskets, but also to form a basis for classification in the study of Indian basketry.

This direct handling of material can be supplemented by visits to museums, where the best types of basketry can be studied. The child enriches his own experience and gains further knowledge of technique in weaving, in construction, and in design by the sympathetic observation of these types. He discovers varieties of texture hitherto unknown to him; new modes of preparing the raw materials are also obtained, and further variations, such as the Indian method of coloring by drying, by burying in charcoal, or by using vegetable and mineral dyes. He also observes that in the best specimens of basketry the natural-colored materials are used for design, and that fruitful material for study is offered in the simple geometric forms common to early primitive peoples, and later in the further development of realistic symbolic forms. The children might be interested in working out symbolic forms for their own region. The idea of symbolizing is presented in connection with their history to children at this time. They now get the idea of the first signs or symbols of the alphabet. Some of the children made alphabetical signs of their own. The idea might be carried to the point of arousing an interest in symbolizing in general, making it real and definite by symbolizing their own everyday surroundings.

Having acquired sufficient experience to examine intelligently the Indian basketry, the child has gained an insight into the life of these people, and there is opened up for him a new field of interest, a new world complete in itself, and satisfactory to his infinite questionings.

In examining the baskets for form, design, and color, some idea of their use should be given. The skill, time, and labor put into ordinary household utensils may thus be realized. The kinds of food prepared and the method of cooking are indicated. The various characters of the baskets, showing the weaves commonly used by the various tribes, indicate also the nature of the raw material, which leads ultimately back again to the character of the environment of these tribes. The child is thus brought into close touch with the home life of these previously unknown people. So, both from the obvious differences in racial habits suggested by these baskets, and from the more subtle points suggested by their materials and their construction, the child gains a clearer and more adequate conception of what the life of these people means than he could have obtained through any formal study of material transcribed by another. The Indian woman has put the best of what she has of artistic refinement and technical skill into her work. Through her individuality we get the best of what the people had to offer—we get a view of their life from its best side. Combining this with what the child gets from his experience with nature, and with the technical training acquired in working with nature's materials, it would seem that basketry might find its place in elementary education.

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GENERAL EXERCISES.

THERE has been enough discussion of the need of a social habit of mind and social service to convince one that the child in the grades, or the student in college, who does nothing more in the pursuit of an education than attain good scholarship is choosing too narrow a course. According to Cecil Rhodes, *scholarship* should possess the worth of three points where *ability in sports, manhood,* and *service to others* count as seven. This judgment of an acute man of the world probably approximately represents that of observant people in general. A good education includes all these factors, and even some other equally important ones, perhaps.

There are always some persons who, owing to their native tendencies, home environment, or other peculiar advantages, enjoy a variety of experience sufficient to develop them freely in all these respects. But a majority seem dependent upon the schools for their estimate of relative values and their corresponding growth. They may be properly broadened through the influence of the school, or may easily be led to ignore those opportunities for improvement that are not distinctly bookish.

There has been a marked tendency in the latter direction in most schools. Certainly the average adult will testify that he never received the impression from the school that scholarship is only one in a half-dozen elements in a good education, and most of us have had to be jostled by the world for a number of years before becoming sufficiently freed from the schoolroom atmosphere to conceive this fact.

It is a vital matter, therefore, to consider when and how the common school plans to impress upon its pupils the several essentials in a good education besides scholarship, and to give to each its approximate relative value.

Two changes of recent years tend in this direction. In the first place, the greatly increased amount of construction exposes the relation of theory to practice in much the ratio that is found in the world in general; and, in the second place, the recognition of actual service to others as the true end-point of instruction, rather than the mere acquisition of knowledge or skill, promises to make school work less theoretical. The two will help much to make school work a healthy representative of real life.

But, no matter how good the instruction in the individual studies may be, it is almost sure to overemphasize knowledge, and thereby to underestimate other good things in life. This must be the case, not only on account of established practice, but because a great number of the chief topics of common interest find no definite place in the separate studies, as these are now constituted. For example, "one's fondness of and success in manly outdoor sports," as Rhodes put it, which he regarded as two-thirds as important as "one's literary and scholastic attainments," are ordinarily unprovided for in the curriculum. Even where physical education has a definite place on the program, its purpose is only such exercises as may lead to health, rather than a deep-seated love of sport and skill in playing games. Yet a love for sport is of immense value, like a love for literature, being the best guarantee of physical health of body and mind, just as the latter love insures mental life and moral health. And, owing to this omission, it is not uncommon to meet adults who admit never having learned to play well with others, or to enjoy such play.

Sociability is another quality that finds no definite place in the curriculum. Many children habitually isolate themselves from companions during intermission, for the sake of a little more study, or because they cannot take part in the enjoyment, or because they have learned to contemn conversation as an idle employment. Yet, if either geography or sociability had, for some reason, to be neglected, no one would long hesitate in allowing the neglect to fall on the former. How many other things might be named that are extremely important, but that do not fall legitimately within any of the studies!

Where and when are such matters to be treated? The school is not, of course, responsible for everything; but, since good character is its aim, it must place the leading elements of character before its pupils, and must develop fair appreciation of their relative values. What better provision is there for this, and for much allied work, than that found in the general exercises of the school?

General exercises would thus assume a very important place, and I am convinced that that is their due. While they should avoid duplicating the studies, they should broaden the child's horizon much beyond that of ordinary instruction, and present the elements of good character to pupils concretely and in proper perspective. To do this well would require much time and planning, and would make the general exercises so prominent that they, more than any other kind of work, might indicate the true nature of the school.

Only by some such arrangement can the personality of a forceful teacher find opportunity for full expression. The studies furnish such an outlet to some extent; but a broadly interested leader needs many other occasions also. One to whom no topics of worth occur for such times stands self-condemned as leading too narrow a life.

The college feels this need, just as does the school. College students very often remark on the narrowness of their individual studies, and long for some agency by which they may be brought into closer touch with a larger world. But the school can solve the problem more easily than the college, because its conditions are simpler. The first requisite, however, in either case is to take the question seriously and put an abundance of work on its solution. Some inkling of the possible benefits from such efforts have been suggested to very many persons by the morning exercises in the old Cook County Normal School under the régime of Colonel Parker.

What kind of work might general exercises properly include? First of all, worship, where the law of the state does not forbid. But a perfunctory reading of the Scriptures and repetition of a prayer probably dull the spirit of reverence rather than quicken it. Why do many of the better schools apply the principles of psychology most earnestly to instruction in nature-study, etc., and apparently forget the existence of such principles when it comes to worship of the Lord? I find no explanation of the fact, except that principals and superintendents—who are the leaders in devotional exercises—ordinarily give so little instruction that they do not hold themselves amenable to the same laws for good teaching as their own teachers must follow. Good pedagogy would seldom allow a chapter in the Bible to be read without comment, and very often the remarks should precede, rather than follow, the reading. An occasional short, earnest prayer by the leader is also greatly needed, to lend meaning to the repetition of other prayers. Freshness and life in worship at school are especially important, because worship elsewhere is usually so dull to children. Variety in the form of exercises thus becomes a law; but close sequence within one day's exercises, and from day to day as well, is as binding here as elsewhere. A certain school containing children of ages from six to twenty years recently gave a fine example of what should *not* be, by the following program: (1) a love scene from Wagner's *Walküre,* on the piano—sensuous in the extreme; (2) a pietistic hymn; (3) the Lord's prayer; (4) a Vedic hymn read, without introductory remarks; (5) a church hymn.

In school, if anywhere, is there an opportunity to teach the real purpose of music in connection with worship; and with that object there should be the closest possible correlation of thought of songs with that of the other exercises, and all together should form a unit.

The occasional omission of Scripture and prayer, for the sake of time, to introduce a "moral talk" seems to me also fitting. The teaching world has grown skeptical of regularly scheduled moralizings; but the need of forcible talks on conduct has not yet been outlived; and fitting opportunities for them are still abundant. A proper utilization of such occasions is the highest mission of the teacher.

There is a great waste of opportunity in not calling in a stranger for a talk occasionally. Very frequently persons are within reach who are well fitted to discuss some important event, to express a personal view about some moral question, etc., in a simple, entertaining manner. The risk of an occasional failure should not dissuade teachers from such a course either, because pupils tire of school routine and personalities, and a few words from outside, supporting ideas perhaps already presented, have a very restful, stimulating effect. The failures in these efforts would be less frequent than they are, too, if definite suggestions were given to such speakers as to the topics that might prove peculiarly fitting. If, for example, a competent man were asked to talk to a school on "How to Read Newspapers," or on "Some of the Ways for a Family to Find Entertainment Together of an Evening," or on the "Worth of Sociability," the greatest obstacle to consenting to speak might be overcome, and unusual profit would be likely to result. Teachers who are watchful of the needs of their pupils would not fail to carry such topics in stock. The introduction of strangers to the school—always carefully coached—might well constitute one of the most important parts of general exercises. At these times, too, parents could be especially invited, the occasion thus furnishing a means of identifying them with the school.

But a good part of the exercises should be given by the children themselves. In the ordinary recitations the interest centers largely in each child's ability to "take in" what the teacher or book presents. The spirit is individualistic. The general exercises should be far more altruistic, expecting individuals and groups to make frequent contributons for the entertainment and improvement of their companions. Thus, committees might make reports; one class might offer an entertainment devised by itself; a larger group might sing songs newly learned; quotations, reports on favorite books read, and debates might be listened to. The work there done would be of a much broader character than that of the ordinary hecitation period, and would throw into perspective the facts of instruction. The last benefit would certainly result if the teacher kept relative values well in mind, as suggested at the beginning of this article, and saw to it that the right emphasis was laid on the main qualities that lead to usefulness and efficiency.

Large numbers themselves are a valuable aid in cultivating the altruistic spirit. The group-feeling is stimulated whenever a child finds himself one of a great many engaged in a common end. To the extent that his own insignificance is impressed upon him, his capacity for devotion to the general good is increased. Under the influence of numbers, therefore, altruistic appeals are most likely to be made with success; the need of unity is then apparent, and right school traditions may become established. In other words, a peculiar and very valuable kind of work can be best accomplished by bringing many pupils together.

I have attempted to show that general exercises, having a special purpose, are worthy of time on the program and very careful preparation. Whether they should be planned for daily, should come always at the same hour, and should cause the entire school to be assembled, are questions the answers to which might vary according to conditions. But, certainly, carefully prepared exercises coming once per week are preferable to a very brief daily exercise. Many objects, too, can be better accomplished in the smaller groups, consisting of children from one or two or three rooms, than in an assembly of all grades. And some flexibility of the program is highly desirable, whereby an ordinary recitation period of a grade may be given over to a general exercise, owing to a need that has unexpectedly arisen.

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LITERARY NOTES ON RECENT BOOKS.

Miss Inis H. Weed, in the *Commons* for July, 1903, gives the following interesting discussion of *The Place of Industries in Elementary Education:*

"Miss Dopp seems to have absorbed the best that Darwin, Froebel, and Professor Dewey have given to the educational world, and after several years' teaching has made an attempt to supply the need, which Miss Jane Addams and many others have so keenly felt, of giving a historic background to the great mass of workers in an industrial society daily growing more complex. 'As the end becomes farther and farther removed,' she writes, 'the worker, no longer being able to perceive the whole process of production, has need of a greater consciousness of collective life' in order to maintain the quality of his life and work.

"The main content of the book is devoted to showing the parallel between the industrial activities of society from primitive times to the present and the psychical attitudes of the child. She points out that our industrial development does not differ organically from that of the past, but in its complexity. In simple social groups, industry has been the matrix holding the other interests of life, as art and science, until they were strong enough to stand alone, and because industry is the very substructure of society, conditioning all other activities which should have a place in the education of the young. The psychologists have found that just as society has passed through the different industrial epochs — first, the period of domestic economy, including the hunting, fishing, pastoral, and agricultural stages, the ages of metals, travel, trade and transportation, the city, state and the feudal system; second, the period of town economy or the handicraft system; and, third, our own period of national economy or the factory system — so the child passes through the same physical attitudes in relation to industry.

"It is out of the question to add more to our already overcrowded school curriculum. Instead, a reconciliation must be brought about between the child and the subjects already there. The introduction of industry in an organic way would do this, each new study being taken up as the content of life is reached which gave rise to it. One chapter in particular, the outgrowth of her endeavor to carry out this method in her teachings, is rich in suggestions. This working up through the more fundamental processes of life, and finding out how the need for each science, art, and industry arose, and their consequent development, will afford a measurement by means of which the child can interpret the materials of the present which are presented to him in less direct ways. 'Practical activity, which is an expression of the child's interests and capacities, socialized by racial experience, is not only the best means, but the only means thus far discovered by which the child can organize the subject-matters of education. It finds its justification in the race parallel, in the fact that it is the way the child learns before he comes to school, the way he can lay the best basis for the later activities of life, and the way he will continue to learn after the walls of the schoolroom are left behind.'"

Studies in Logical Theory. Edited by JOHN DEWEY, with the co-operation of the Members and Fellows of the Department of Philosophy.

THIS volume contains the results of the investigations carried on for the past eight years at the University of Chicago. The research has been a series of critical and constructive studies along the lines of the recent works by Bradley, Bosanquet, Lotze, and Swigart, as well as some of the earlier English writers. Among the contributors, besides the editor, are Dr. MacLennan, of Oberlin College; Dr. Stuart, of the State University of Iowa; Dr. Helen Thompson, of Mt. Holyoke College; and Drs. Moore and Ashley, of the University of Chicago.

xiv, 300 pp., cloth, royal 8vo; *net,* $2.50; postpaid, $2.67. The University of Chicago Press, Chicago, Ill.

The Psychology of Child Development. By IRVING KING. With an Introduction by JOHN DEWEY.

THE former basis of investigation for child-study was the assumption that child-psychology was simply adult psychology reduced to lowest terms. This led to a great variety of detached statistics collected and interpreted in an unscientific manner and therefore inconclusive.

Mr. King develops the idea that the study of the child's mind should be carried on from a different point of departure. The object of the new method of investigation should be to find out how and under what circumstances the mental processes arise, and what they mean to the *child,* not to what they are analogous in the adult mind. Above all, the investigator must appreciate these processes, not by themselves, but by their place and value in the entire conscious life.

The author from this new point of view sketches the process of mental growth in children, with especial reference to their development during the school years. This he deduces from their interests in books and games during that period. No new material is presented, but rather an outline of a functional interpretation of the well-known facts of child-life, showing what the multitude of observations of child-psychology can mean.

280 pp., cloth, 12mo; *net,* $1.00; postpaid $1.10. The University of Chicago Press, Chicago, Ill.

The Mental Traits of Sex. By HELEN BRADFORD THOMPSON.

"SO MUCH time and space have been spent in digging out and exploiting the differences between men and women that any number of individuals of one sex or the other have come to think that at bottom there is no substantial identity. It is hardly worth while saying that there are far more traits and characteristics held in common by the two than there are differences, but it needs to be said with a loud voice in order to remove a number of utterly unreasonable prejudices.

"This has been the not unpleasing task of Miss Helen Bradford Thompson, Ph.D., who was for a time fellow in the department of philosophy in the University of Chicago and is now the director of the psychological laboratory at

Mount Holyoke College. Her book is called *The Mental Traits of Sex: An Experimental Investigation of the Normal Mind in Men and Women.* It contains the results of tests, carefully devised and executed, of twenty-five men and as many women, taken somewhat at random from the upper classes and graduate department of the University of Chicago within the last two years, the selection being made among this class in the community because men and women in coeducational institutions of America, beginning with the public schools and ending in the universities, present fewer points of difference in their training than are likely to be found elsewhere. It is one of the important conclusions of the work that by far the most apparent differences between men and women come from training and education, and not from any inherent or intrinsic differences from sex; so this point was necessarily insisted upon in the selection of the subject-matter for experiment.

"The ground covered in the tests includes questions of motor ability, skin and muscle senses, taste and smell, hearing, vision, intellectual faculties, and affective processes. A chapter is given to each of these varying inquiries, and each chapter contains as well a review of all the work done on similar lines in the world of science in recent years. The final chapter brings together all the facts elicited by the experiments and compares them with other similar facts, so that less than an hour's reading will put the curious in full possession of all that the world really knows experimentally, as distinguished from empirically, concerning men as men and women as women."—Chicago *Daily News.*

viii, 188 pp., cloth, 8vo; *net,* $1.25; postpaid, $1.35. The University of Chicago Press, Chicago, Ill.

BOOKS RECEIVED.

Boston: A Guide Book. By Edwin N. Bacon. Boston: Ginn & Co., 1903. Pp. x, 190, 16mo; leatherette. $0.50, *net.*

First Book in Hygiene. By William O. Krohn. New York: D. Appleton & Co., 1903. Pp. 144, 12mo; cloth. $0.35, *net.*

Agriculture for Beginners. By Burkett, Stevens, and Hill. Boston: Ginn & Co. Pp. 267, 12mo; cloth. $0.75, *net.*

The Jones First Reader. By Lewis H. Jones. Boston: Ginn & Co., 1903. Pp. 160, 12mo, illustrated; cloth. $0.35, *net.*

The Jones Second Reader. By Lewis H Jones. Boston: Ginn & Co., 1903. Pp. 208, 12mo, illustrated; cloth. $0.40, *net.*

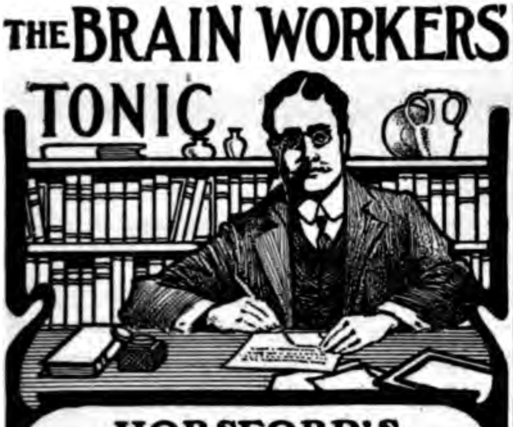
The Jones Third Reader. By Lewis H. Jones. Boston: Ginn & Co., 1903. Pp. 287, 12mo, illustrated; cloth. $0.50, *net.*

The Jones Fourth Reader. By Lewis H. Jones. Boston: Ginn & Co., 1903. Pp. 416, 12mo, illustrated; cloth. $0.65, *net.*

The Jones Fifth Reader. By Lewis H. Jones. Boston: Ginn & Co., 1903. Pp. 496, 12mo, illustrated; cloth. $0.75, *net.*

Primary Arithmetic. By W. J. Milne. Chicago: American Book Co., 1903. Pp. 160, 12mo; cloth. $0.25, *net.*

Child Literature. By Mae H. Simms. Chicago: American Book Co., 1903. Pp. 144, 12mo, illustrated; cloth. $0.35, *net.*



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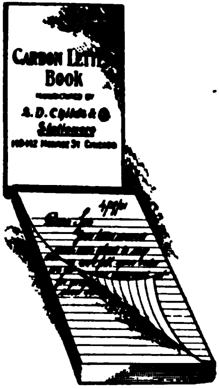

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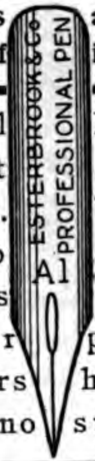

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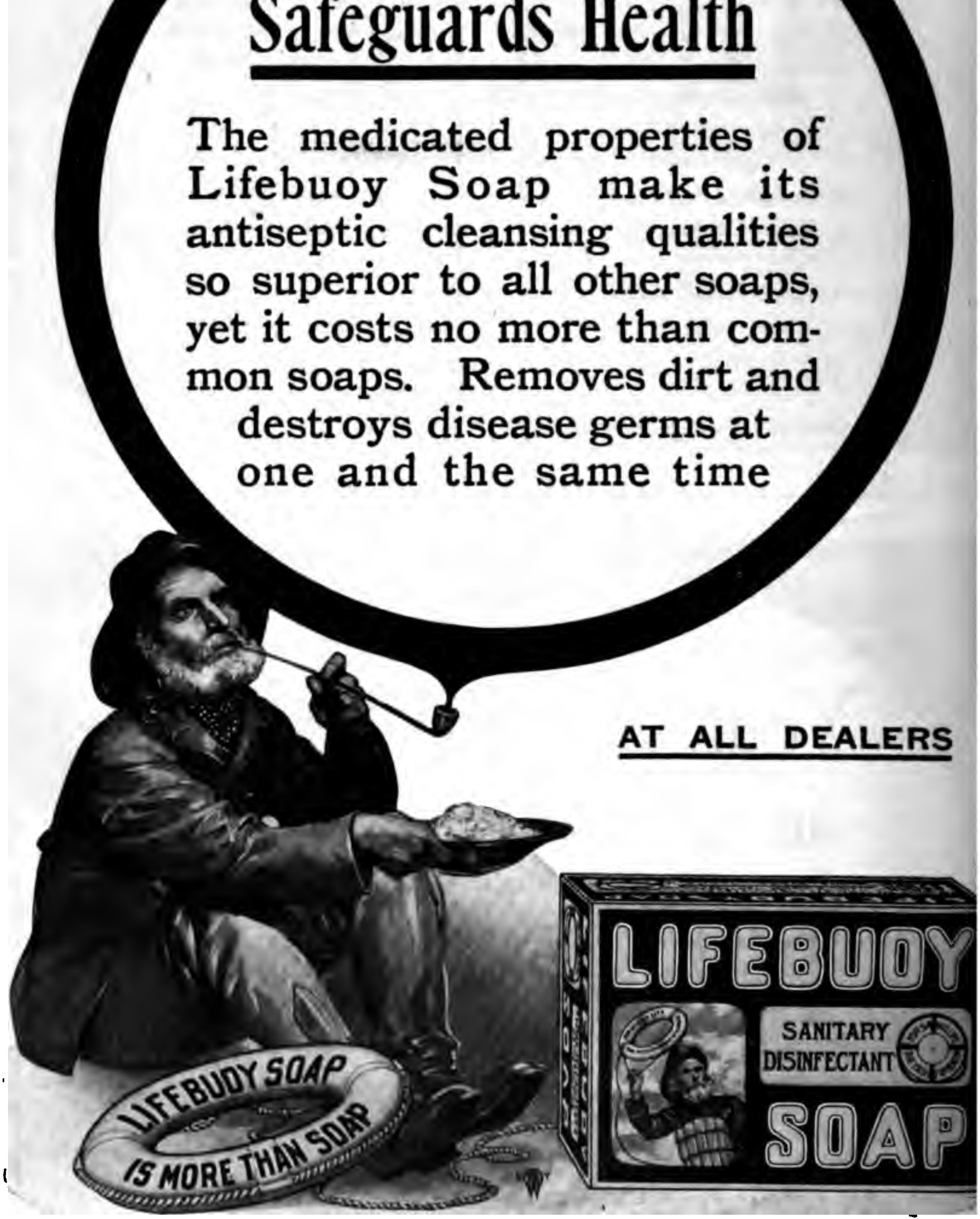

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CONTENTS FOR NOVEMBER, 1903

'URE-STUDY AND SCIENCE WORK IN THE FRANCIS W. PARKER SCHOOL
FLORA J. COOKE 129

AT TRAINING IN PHYSIOLOGY AND HYGIENE MAY WE REASONABLY EXPECT OF THE PUBLIC SCHOOLS? WILLIAM T. SEDGWICK, THEODORE HOUGH 132

'URE-STUDY TRUE TO LIFE - - - - - - - WILBUR S. JACKMAN 145

'ORD OR TWO ON SELF-ACTIVITY IN THE SCHOOLROOM - M. V. O'SHEA 153

EDUCATIONAL VALUE OF FAIRY-STORIES AND MYTHS
GUDRUN THORNE-THOMSEN 161

E CONDITIONS OF EXPRESSION IN THE SCHOOLROOM - COLIN A. SCOTT 168

IFTH-GRADE SCHOOLROOM - - - - - - - HERMAN T. LUKENS 178

EARTH IS THE LORD'S - - - - - - - - - - ELEANOR SMITH 185

.LL THE EXAMINING AND LICENSING OF TEACHERS SET A MODEL IN PEDAGOGY? - - - - - - - - - - - - - - - L. E. WOLFE 189

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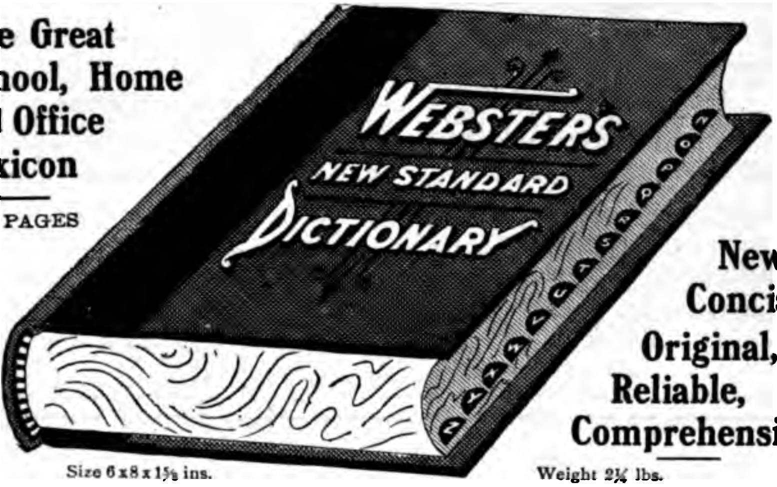

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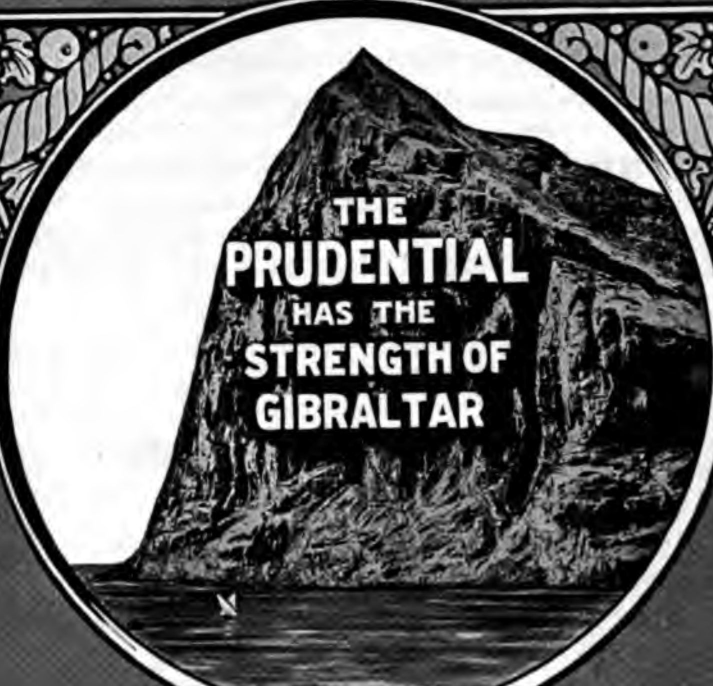

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VOLUME IV NUMBER 3

THE ELEMENTARY SCHOOL TEACHER

NOVEMBER, 1903

NATURE-STUDY AND SCIENCE WORK IN THE FRANCIS W. PARKER SCHOOL.

I. NOTES.

THE following outline represents the work in nature-study and science as it is planned for the ensuing year, for the first eight grades, in the Francis W. Parker School.

The studies here included fall into two groups: those in which the children are brought into direct contact with the phenomena of nature, and those in which they work with materials in their natural state. The studies of the first group help the children to enjoy the beauty of nature and to appreciate the laws which underlie its various manifestations; those of the second lead them to discover, through their own experiences, the principles and processes of the great primary industries—those pertaining to food, shelter, and clothing.

The purpose of the outline is to set forth, for study and criticism, the quantity and quality of the above-mentioned work. On account of lack of space, the outline is most incomplete. It is not possible within its limits to give the related work in history, mathematics, literature, and art, or a description of all the forms of study and expression which the work involves in each grade. All of the handwork of the school might properly be placed in this outline, but much of the work in wood and metal does not appear because it is not correlated with the science or nature-study work.

If the outline is read from the top downward—that is, if the work of one grade only is considered—it must be remembered that only part of the work of the grade is represented, so that there is sometimes little apparent unity or connection between the subject-matter which appears there and the occupations. If, however, the outline is read from left to right, according to the subjects as they appear in each grade, it is easy to observe the progression in each phase of the work, and to trace the attempt which has been made to follow the growth of the children from grade to grade, in their enlarging experiences, their increased physical ability, and their greater intellectual development.

It should be understood that almost all the work outlined is done in response to some demand of the school community — a demand which the children are able to understand and appreciate, so that in every phase of the work — in the experimental science, in cooking, in gardening, and in the occupations — the goal of the child's efforts seems to him "worth while," and he is stimulated to his highest degree of activity and sustained through the necessary drudgery by the interest which he has in the end to be attained.

In order to give this part of the work its full significance, it will be necessary to state briefly the general plan and purpose of the school: The school was organized to carry out, as far as possible, the educational theory of Colonel Francis W. Parker, which demands that all the work of the school should tend directly to the formation of perfectly developed human beings — toward the creation of an ideal community. This ideal governs the selection of work throughout the course, and in order that the movement shall be continuous from the kindergarten through the high school, it is obviously necessary to select the work, primarily, with reference to the ideal, but also with reference to the individual experiences, social requirements, and interests, and, again, with reference to the physical and mental stage of development of the children in each grade. The controlling educational principle in the selection of the work is that self-activity is the law of growth.. Under this ideal the child's will and his motives in work become the essential consideration of the teacher, rather than the acquisition of certain definite knowledge; the knowledge

SIXTH GRADE	SEVENTH GRADE	EIGHTH GRADE
ladscapes and climates h and South America: of government weather special attention to f day and night.	Climatic conditions of Eurasia compared with those in America: making of coutour maps; study of typical landscapes in different parts of the world.	Summary of previous work in nature-study: carbon cycle — law of conservation of matter and energy as illustrated by the cycle of carbon from the inorganic state through vegetable and animal life, back into the inorganic state.
phical types in vicinity: tion of plants and ani- on selected areas; shore swamps, glaciated re- c.; elementary forestry.	Physiography continued: mapping of areas; field work; special study of Eurasia.	Study of world as whole: continental structure, with laboratory work to illustrate or explain class problems.
y physics: evaporation densation. tal study of fermenta- on of structure of nd animals.	Experiments in plant physiology and field botany: microscopic examination of the cellular stucture of plants. Experiments in mineralogy in connection with the classification of minerals for the school museum. Elementary geology.	Summary and classification of the physics and chemistry experiments of previous grades. Experiments in physics, chemistry, and physiology as demanded in the study of conservation of energy.
n of special class lunch- special work in extrac- sugar from sugar beets; of artificial freezing: of frozen dishes, ice etc.: special study of rystallization, etc.	Preparation of at least three luncheons during the year as a review of previous work and requiring a simple classification of the foods in making of menus. Special emphasis given to the study of temperature: oven temperatures; effect of heat upon food principles.	Used only as laboratory work in connection with other science work: study of food as form of energy and as fuel; of the food principles and the value of each: noting of the processes and effects of cooking.
in the Spring Quar- anting of selected seeds ference to fall work in dy of plant structure, ermination, and plant	Laying out of garden for entire school: use of garden as laboratory in the study of plant physiology; study of effect of heat upon soils.	Planting and harvesting of selected vegetables or grains for the use of the school: garden used to illustrate work in science — one example of carbon cycle.
Industrial development United States: special f steam engine and vari- ool machinery. *k.*—experimental work : bridge-making: mak- bridge for the kinder-	*Subject.*—Arts and crafts movement of the Middle Ages; work of guilds. *Hand-work.* — Bookbinding and printing: entire process of making a book; preparation and tanning of leather for a book cover; binding of magazines of the school for the library.	*Subject.*—American institutions and government; English history. *Hand-work.*—To show outcome of eight years' work: work in wood, metal, textiles, and clay: problems in construction and decorative design.

acquired is, however, of the utmost importance in the teachers' eyes, because it is an absolute measure of the quality of the work done.

Finally, the outline as here presented is in no sense a finished product. It is the outcome of the thought and experience of the teachers of the school. It represents their efforts to find the best experimental work for each group of children, keeping in mind their entire school life.

In the study preceding the making of the outline the value of work was judged by certain standards. These standards of value may be made evident by the following statements concerning the efforts which were made: (1) to select only that work which is intrinsically valuable, capable of arousing strong images — possessing possibilities of infinite growth — work in harmony with the ideal of the school; (2) to choose the work best adapted to the children, judging from their experiences, their fundamental interests, and their various stages of development; (3) to discover the real demands of the school community, and so distribute or grade them that in each group of children the work should be new enough, difficult enough, and attractive enough to stimulate them to genuine independent hard work; (4) to make the school environment rich and varied enough in material and problems to furnish incentives to work in many directions — thus providing for the all-around development of the children; (5) to cultivate in the children throughout their school life a respect for good work and good workers, and to leave them with a genuine desire to discover the laws and truth of things, and with a wholesome, open-minded attitude toward nature, humanity, and God.

FLORA J. COOKE.

FRANCIS W. PARKER SCHOOL,
Chicago.

WHAT TRAINING IN PHYSIOLOGY AND HYGIENE MAY WE REASONABLY EXPECT OF THE PUBLIC SCHOOLS?[1]

In the public schools of today various subjects are taught, and for various reasons. Some, like arithmetic or the reading and writing of English, are indispensable tools of modern civilized life; others, like geography and history, impart necessary information or promote general intelligence; still others, like algebra, geometry and Latin, are agents of mental discipline or else afford necessary preparation for subsequent work. Physiology and hygiene, the studies with which we are concerned in the present paper, were introduced into the public schools for the express purpose of affording information concerning the structure and functions of the human body, being expected thereby to contribute to the preservation and promotion of health; and they have kept their place, in spite of serious shortcomings, as a concession to the practical importance of sound ideas concerning health and disease.

The training which may reasonably be expected in the reading and writing of English, in arithmetic, in geography, or in Latin is the subject of frequent discussion in educational gatherings and is doubtless influenced by such discussions; but it is determined chiefly by the examination requirements of the upper grades and by the entrance requirements of higher educational institutions. With physiology and hygiene the case is different. Proficiency in these is rarely made a condition of promotion. They are seldom included in the list of requirements for admission to colleges or technical schools, and never in those for medical schools. They are not often much considered in educational congresses. And yet it is doubtful whether any subject in the whole curriculum of the public schools is of greater intrinsic importance as a preparation for life, or is capable of affecting more profoundly the whole mental attitude of men and women toward an enduring and well-organized civilization.

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[1] Read before the American Social Science Association, Boston meeting, May, 1903.

The real importance of physiology and hygiene is unquestionably far greater today than it was twenty-five years ago. At that time physiology was a new science. It was still commonly taught in medical schools as an adjunct to anatomy, and the double-headed professorship of anatomy and physiology had not then become extinct. As for hygiene, this was largely a body of precepts based upon *a priori* reasoning, or else of deductions derived jointly from anatomical knowledge, common experience, and common-sense. Disease was only a little more baffling than health, and the promotion of one poorly understood condition by the prevention of one still less comprehended was not only a most unsatisfactory, but a most unscientific undertaking. Nevertheless, in spite of this difficulty and uncertainty, physiology and hygiene, such as they were, have steadfastly held their place in the curriculum of the public schools, no doubt because of an unconquerable belief that they would somehow furnish to the developing mind and the forming character some real and lasting help in the preparation for life.

And at last this belief seems likely to bear fruit and to justify its long and patient expectation. For today physiology has won an established and recognized position as an independent science. It has become entirely separated from anatomy. It has its own professors in our medical schools and universities. We have a strong and active American Physiological Society, composed of expert investigators and teachers, and a flourishing *American Journal of Physiology,* which publishes regularly budgets of important discoveries.

In hygiene the progress has been even more remarkable. Twenty years ago the infectious diseases were as mysterious as ever; but today we understand the essentials of their operation and also to a great extent the mechanism of their dissemination, and, therefore, in many cases the ways of their prevention. The clouds of mystery which until lately hung about them have largely been cleared away, and a new hygiene, based partly upon experimental physiology and partly upon experimental medicine, has come into being. Meantime an enlightened sanitary engineering is building improved sewers and water-works, and dealing with the purification of sewage and water, with the construction of sanitary pavements, with the dust nuisance, and with efficient scavenging and garbage destruction. Boards of health are equipped with laboratories for sanitary testing and research. They are supervising the medical inspection of schools. They are isolating cases of infectious disease and securing the disinfection of clothing and of houses. They are enforcing vaccination. They are vacating unwholesome dwellings.

Educators themselves are engaged in hygienic endeavors. They are providing for playgrounds. They are beginning to attend as never before to the ventilation of school buildings. They are interested in the lighting of schoolrooms, in the seating of pupils, and in their sight and hearing. The home also is receiving the attention of hygienists. Its site, its drainage, its wall papers, its ventilation, its cookery, are undergoing careful investigation.

And, finally, personal hygiene — the care of the individual body, its exercise, its fatigue, its work, its rest, its play, its clothing, its bathing, its hunger and thirst and sleep, its growth and its old age — is being dealt with today, not superficially and by tradition or experience alone, as formerly, but also by experiment. Physiology and hygiene have become *experimental* sciences, and have thus taken on a new and higher value. In view of all these marvelous changes, we may properly ask and undertake to answer the question which forms the subject of this paper.

But first and always we must keep steadfastly in mind the end and object sought for in the training under consideration. This has always been, and still is, primarily practical and technical; namely, a sound preparation for the right conduct of physical life. For although it is reason enough for increasing the efficiency of instruction in these subjects that they give information on matters of great human interest, and that, when rightly taught, they are of high educational value, still the primary purpose of teaching them is not to give information nor mental discipline, but because their subject-matter is of immediate and enduring importance in determining and promoting the right conduct of the physical life, and especially the preservation and promotion of health. Their value is special rather than general, practical rather than cultural, technical rather than disciplinary.

We may confess frankly that physiology and hygiene have not always hitherto justified their place in the curriculum by their results. It would be going too far to deny that they have been without influence, or that in exceptional cases they have not been valuable; but they certainly have not, on the whole, accomplished what was originally expected of them. Their results have been disappointing, and it is by no means unusual to hear competent educators express the opinion that it would be better to drop them altogether. Physiology and hygiene are too frequently looked upon by school authorities as an unavoidable necessity, and by teachers and pupils as a bore. And yet we doubt whether any of these superintendents or teachers would care to take the responsibility of banishing them altogether from the curriculum. They may not be a success; but the conviction remains that they ought to be a success, and doubtless the hope, however faint, that some day they will be.

The present unfortunate condition of affairs is due, in our opinion, largely to the fact that the primary purpose of these subjects in the curriculum has been neglected or forgotten. They were perhaps introduced prematurely, as has been suggested above. Fifty years ago anatomy was the one branch of medical science about which definite statements could be made, little was shown about physiology, and the great field of hygiene was largely a matter either of popular tradition or of impressions derived from personal or racial experience, often, indeed, surprisingly accurate, but nevertheless lacking in the certainty of experimentally demonstrated fact.

It is only exact knowledge which lends itself to school instruction. We do not teach electricity in our courses in physics by speculating about thunderbolts or the nature of magnetism, but by telling what we know of the production, the conduction, and the induction of electrical energy. We leave the region of the indefinite to the investigator. It is easy to see, therefore, how it came about at the outset that in planning the work in physiology and hygiene in schools the details of gross and minute anatomy should have formed the major part of the whole. Function was treated only sparingly, because very little was known about it; and considerations of health and disease occupied an insignificant place simply because definite statements could not possibly be made about them. The instruction in school physiology and hygiene was chiefly anatomical for the reason that the dissecting room was the sole laboratory of the medical school. It was the one region of real and accurate knowledge of the subject.

We have said above that this condition of hygienic knowledge has been entirely transformed during the last twenty years. The physician is far less mysterious in his manner than formerly, because his fund of knowledge is vastly greater. He often explains his reasons to his patient and discusses the facts of his profession with "the laity," where he would not have done so fifty years ago. It was within twenty years that one of our leading pathologists was heard to define malaria by remarking, "When you don't know what it is, it is malaria." Today he would not give that definition, but would delight to describe the wonderful story of those discoveries which within a score of years have led to our present satisfactory understanding of the nature and mode of dissemination of this disease.

The teaching of physiology and hygiene in the public schools has lagged far behind this march of medical and hygienic progress. It is inexcusably behind the times. We now have facts which anyone can teach and which should be made known as a preparation for the proper conduct of life; and it is these facts which should form the main part of the teaching. The subject-matter should be thoroughly revised, and in no more important particular than in the restriction of anatomy to the minimum amount needed to give a clear conception to the general structure of the body as a mechanism and of the normal working of that mechanism. In a rural schoolhouse on the Maine coast we once saw upon the blackboard, painfully written down by a fisherman's child, a long and learned list of bones found in the human body. Even for a medical student the list, as such, apart from the physiology and surgery of the bones, would have been of small value; for the children of fishermen the bones of the cod or haddock or of the domestic animals would probably have been of greater consequence. An arid osteology is a poor introduction to the study of modern hygiene, and one not calculated to arouse a compelling interest in the subject.

Similar considerations hold with regard to the teaching of physiology. The educational value of this science, it is true, is much greater than is that of pure anatomy, for, in the first place, it is more interesting. Not only in childhood, but throughout life, we do not care greatly about the parts of a machine unless we know or can guess their use. From this point of view physiology is a good teaching subject, and all the more so because it deals with a machine in which most of us are naturally interested. The study of the activities of the human body has also the highest philosophic value. It imparts that first and most important lesson for the conduct of life—a lesson which every person leaving the upper grades of the public schools should carry away with him—that the human body has a material basis and is a *mechanism, a machine.* We must constantly recall, in order to emphasize, Huxley's saying that "the distinctive feature of modern as contrasted with ancient physiology" is "the fundamental conception of the living body as a physical mechanism." That this fact is not with most people a part of the philosophy of living is shown by their consumption of patent medicines and the frequent neglect of the commonest care of the body, such as would be naturally given to a watch or a bicycle.

We have urged that anatomy has no place in the public-school curriculum except as it is necessary to the understanding of the problems of physiology and hygiene; and we shall see it cut down to the minimum needed for this purpose without the slightest regret. We should not feel the same if physiology were to be similarly made strictly subservient to personal hygiene; that is, if its philosophical value were to be neglected; but, fortunately, this is not necessary. The physiology which is most useful in understanding the problems of personal hygiene is almost exactly the same body of principles which has the greatest philosophic value; and the method of presenting them is the same for the one purpose as for the other. We have not the time to enter into details in this matter, but we are speaking from experience and are sure of our ground. The instruction in physiology should aim at the outlines of the more important functions of muscular contraction, nervous activity, circulation, nutrition, temperature regulation—all of these expressed as far as possible in terms of physics and chemistry; and it should endeavor to avoid needless details. For example, the pupil should understand that the heart is a force pump, but it is not necessary that he should understand the exact structure or mechanism of the auriculo-ventricular valves.

Again, physiology should not be made primarily, or even to any large extent, in public schools, a means of laboratory training. Such training can be had more readily and more advantageously in chemistry and physics. To attempt to give the same laboratory training in physiology as in these subjects would inevitably be to consume time which is more urgently needed for hygiene. The fundamental facts of physiology can be demonstrated and enforced in the laboratory, even in common schools, without much difficulty, and we would not for a moment depreciate the value or the necessity of a certain amount of this kind of instruction; but the use of the laboratory (always time-consuming) must not be allowed to distract attention from the true function of physiology and hygiene or to interfere with its fruitful realization.

A course of moderate length in physiology should suffice to impart enough facts of structure and function to furnish a solid basis for sound training in hygiene, and to give meanwhile an abiding sense of the material composition and mechanical character of the human body and some knowledge of its environment and operation. With so much of preparation it is easy to pass on to a practical consideration of health and disease, the means of promoting the former and of avoiding the latter. Health becomes simply normal, disease abnormal, living. Such terms as "constitution," "strength," "weakness," "feebleness," "robustness," are easily understood by constant reference to mechanisms well or poorly made, or to structures strong or weak. Wounds become interference caused by invasions or damage by extraneous matters — bullets, knives, parasites, clubs, dogs, slivers — which are as obviously out of place in living mechanisms as dirt in the works of watches. Germs are microscopic invaders, microscopic parasites. They enter and wound and kill, not mysteriously, but by damaging or interfering with the human mechanism. Best of all, they can often be kept out by the avoidance of exposure, as truly as bullets can.

Passing on to the strictly hygienic part of the subject, first in logical sequence comes *personal hygiene,* the proper regulation of the activities of individual life — muscular work, mental activity, feeding, the protection against colds and other inflammations, the care of the body by bathing and clothing and the like. These should not be touched upon in short paragraphs which, like after-thoughts, conclude the chapters on anatomy or physiology, but should be separately and fully treated for their own sake, and from the standpoint of the organism as a whole rather than from that of special organs. These are subjects about which everyone needs real and true information, and sooner or later seeks it. Shall such knowledge be obtained from the public schools, or sought eagerly but in vain in the brazen advertisements of magazine originators of new systems of physical training, or in the rash and rarely disinterested advice of advocates of new breakfast foods?

Modern hygiene begins with the individual, but deals also with the hygiene of the family, of the community, of the state, and of nations. In rapid review of the place which these branches of the subject should occupy in our preparation for sound private and public life, it must not be forgotten that the great majority of the pupils in our public schools have no opportunity or intention to enter colleges or higher schools, and yet are likely to become householders, housekeepers, heads of families, or citizens. The principles underlying household or *domestic* *hygiene* and sanitation therefore claim some consideration at their hands. These should include such questions as the proper site of the house, the value of fire-places as ventilators, the importance of wall papers free from arsenic, the advantages of bare floors and of simple rugs as compared with carpets difficult to clean, the necessity of a pure and abundant water supply, the desirability of prompt removal of wastes by drainage and by such other devices for rural communities as may be made most sanitary under the circumstances, the dangers of damp cellars with the reasons why cellar dwellings are so peculiarly unwholesome, the dangers of illuminating gas (especially the modern so-called "water gas"), the need of careful consideration and frequent inspection of gas fixtures to avoid small but dangerous leaks, and other similar matters bearing directly or indirectly upon the welfare and sanitary condition of the home. Here might well be told the truth in regard to the advantages and dangers of cesspools and sewers, and the effects of leaky or otherwise defective plumbing.

Place should also be found, and might easily be made by the sacrifice of some osteology and histology, for a brief consideration of *the health of communities,* such as thickly settled neighborhoods, growing towns or cities; of the dangers attending impure water supplies and defective sewerage systems; and the importance of methods for the sanitary removal and disposal of garbage, rubbish, and the other wastes of life. Something might well be said regarding the need of proper municipal supervision of all these matters as the essential of a rational municipal sanitation and of the sanitary value of good public service. Here also might be touched upon the advantages and the right use of municipal parks, playgrounds, and gymnasia; of public lavatories, water-closets, and wash-houses; of smoke abatement and noise suppression; and something might be said regarding clean streets and the thoughtless scattering of papers, banana skins, and the like rubbish, which necessitates a costly scavenging; something regarding pure ice and especially pure milk—problems in the solution of which all classes of the community must eventually take an active interest and participation, if reform is to come.

And, finally, room should be found for a brief explanation of quarantine, its advantages and disadvantages; the isolation of cases of infectious disease and the reason why this is so essential to the public, though so inconvenient to the individual; the necessity for public hospitals for contagious diseases and for municipal or state sanatoria for tuberculosis; the fundamental problems of international hygiene; public food inspection, such as that conducted by the federal government for trichinosis in pork to be exported to foreign countries; and other problems calling for intelligent co-operation of the citizen in *national and international hygiene.*

Trained along these lines, the youths of America, whether or not afterward going to college or technical school, would enter upon their maturer life with some realizing sense of the general structure and operation of the body as a physical mechanism, and the necessity of obedience to physical laws. They would become familiar with the sources of diseases and with some of the more obvious ways of avoiding them. They would have some intimation of their duty, not only to themselves and to any families which they might afterward have, but also concerning wholesome houses, pure supplies, the safe disposal of wastes, and some of the problems of the municipality, and even of the nation, of which they are units.

We have, of course, to meet the important objection which will be urged against our point of view, that, desirable as all these things may be, the time available is too short for proper dealing with them. This, however, we deny. Time enough to do all these things, and do them well, either is now or lately has been found in the public schools in the various courses for instruction in physiology and hygiene. It will be necessary, it is true, to revise and bring up to date our subject-matter and our methods of instruction. We must teach less about bone and sinew, and more about muscle and nerve. We must teach less about anatomy and histology, and more about the germ theory of disease, about polluted water and polluted milk. We must simplify every statement and eliminate the unimportant. We must not seek to make of physiology a training in the precision of measurements, or in scientific method, or in anatomy, or in physiological chemistry. Some experiments must be made by the students, and demonstrations by the teacher must abound; but we must keep steadily in view the practical object for which chiefly school time is, and long has been, dedicated to physiology and hygiene, namely, the rational conduct of physical life.

Above all, we must insist upon relief from the incubus of that "scientific temperance" instruction, so called, which has too long rested upon the teaching of physiology and hygiene, winding its tentacles about, octopus-like, sapping its strength and crushing out its usefulness. On this subject let us have no misunderstanding. The evil effects of the use of alcoholic drinks must be fully and clearly inculcated. The youth of America must be thoroughly informed of the insidious dangers which lurk about strong drink. But on the other hand, we must never forget that the public schools are no place for any propaganda, and that the freedom of teaching must not be surrendered even to reformers.

Whether we are pleased with the fact or not, modern life has become more strenuous. In order to achieve success, the individual must do more in a given time; hence the urgent importance of a personal hygiene which shall really guide him in the proper care of the body. Meantime the care of the public health has become one of the most important functions of government, and it will be increasingly important in the future. Its success in America must largely depend upon an enlightened citizenship to which it can look for support. We now teach history and economics and civics with some reference to the future life of the public-school pupil as a citizen. Our teaching of hygiene should keep in view the same great end; and if this paper draws attention to the lamentable inadequacy of our present instruction in that subject to this purpose, our object will have been accomplished.

But yet more is needed. We need a clear conception of the true place of physiology and hygiene, but we need also the proper teachers to realize that conception. If the subject is as important as we have represented, it should be taught by teachers specially trained. In the higher grades of our schools we often have special teachers of languages, of history and civics, of mathematics, of the natural sciences; but it is rare indeed to find physiology and hygiene in the hands of teachers who have had special training in these subjects. Too frequently these are imposed upon the least experienced member of the staff, whose connection with the school is too recent or whose tenure is too precarious to allow refusal. All this must be changed. The exact method of securing the trained instructor may often be left to local conditions. At times, medical examiners, the demands of whose practice are not distracting, and who are at the same time good teachers, may fill the position; at other times, teachers of the biological sciences should be encouraged to prepare themselves for the work.

A method which especially commends itself to us is to combine this work with that in physical training. The teachers of physical training, of all the instructing staff of the school, stand in closest relation to the problem of preservation and promotion of sound health. At present their work is somewhat narrow and suffers from the lack of any sufficient explanation of the principles of physical training. It would broaden the work of these teachers and make their present efforts more effective, if physiology and hygiene, so obviously related to their other work, were placed in their hands. True, it would require a broader preparation and an extension of the work of our normal schools of physical training in both time and scope; but this is really an argument in its favor. Normal schools of physical training ought to extend and enrich their courses, especially in view of the fact that so many of their graduates must occupy positions in the higher grades.

There is a widespread feeling that the present training in physiology and hygiene in the public schools is a failure. But signs are not lacking of a strong feeling among prominent educators that these subjects can and should rank in dignity and usefulness with languages, mathematics, physics, chemistry, biology, history, and civics. Physiologists have long protested against the domination and excesses of "temperance physiology."

Educators have complained of the bad pedagogical requirements often placed by law upon the teaching of the subject. We appeal to the members of the American Social Science Association to aid us in bringing about a reform, not as parties to either side of a dispute on questions of scientific fact about alcohol, nor from the standpoint of pedagogic theory and practice, but because the subject is one which profoundly affects social conditions and is closely related to a more intelligent and a more successful conduct of individual and social American life.

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NATURE-STUDY TRUE TO LIFE.[1]

NATURE-STUDY true to life — there is no other! If there is anything abroad imposing itself upon childhood that is not true to life, it is not nature-study. It is its caricature; it is an impostor and a cheat.

Nature-study true to life has existed with children before they enter school since the creation of man. If we would hold it in the schools equally true to life, we must study the way nature teaches in this period and the way children learn. In their early years they learn because they love nature; if in after-years they fail to learn, it is because they hate science. They surrender themselves unconditionally to nature; but with science they barter and make terms. Nature itself fascinates and leads; science too often repels and drives.

A few years ago someone in Boston, I believe, sought by a questionnaire to find out whether children liked nature-study or spelling the more; and spelling won the votes. But the decision was not against nature, but against the teachers and the teaching. Were it a question as to which is the more delightful, the spelling book or a day in the woods, the groves would surely win. Children cannot repudiate nature for the same reason that water cannot run up hill — it would be unnatural, they would not be children.

Behold in this time the perfect scientific method of nature, the teacher and the ideal attitude of the child, the learner! Nature offers herself to the child as a coherent and rational whole. This whole appeals to the child through its function and purpose, which to him is primarily its beauty and then its use. Nature as a teacher at no time insists, nor does she persecute with her attentions. Neither does she hurry or demand so much or a definite result in a given time; she exploits no philosophy; she has no theories to prove; she simply offers herself in a thousand ways, and patiently waits for any response made by the growing mind to her appeals.

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[1] Discussion of the topic "Nature-Study True to Life," before the Department of Elementary Education, National Educational Association, July, 1903.

The young learner meets these overtures of nature with an intellectual attitude that is ideally scientific. He is not blinded by prejudice; he has not been enslaved by creeds; nor has he been frightened or coerced by authority unquestioned. He has that for which the scientist ever prays and which he rarely finds — the open mind. The evident purpose of the child is the full enjoyment of the life of the moment. He is not worried with any necessity for faith, nor is his life's flow choked by the appearance of doubt. He is immersed in nature, and nature thrills in him. He is a part, and nature the whole, to which he feels he belongs. Nature-study here is true to life.

In the schools it becomes false for many reasons. One of the most obvious is that the school begins its work without properly estimating the value of what the pupil has already learned. Many of the lessons of nature have been wrong, but they have been well taught nevertheless, and they have been thoroughly learned. The impressions of these early years have been almost indelibly fixed by the slow processes of absorption and growth, and nothing but the most careful presentation of new facts by methods as natural as those employed by nature herself can correct the errors in knowledge. For example, the child for six years at least has been learning in a most effective manner that the earth is flat; that it stands still; that the sun is small and the earth is large; that the sun is near by — just above the clouds; that the sun moves; and many other things of a like kind that are diametrically wrong. We usually attempt to correct these errors by feeding the learner a soft diet of easy definition — a method that at once makes nature, as he knows it, false to the life of the child.

Again, the great picture of nature which the child has gradually built up is by the methods of the schools shattered to fragments. This is accomplished by picking out bits here and there for special study, to the exclusion of much that is necessary to a clear understanding of what is presented. Teachers usually overestimate tremendously the child's mental confusion regarding the facts and phenomena of nature. If he has had reasonable opportunities for observing nature (and if he has not, they must be provided), his mind will be a storehouse of facts of apparently many unrelated kinds, but actually, as he knows them, there is little or no disorder. They are usually well classified according to an absolutely natural method. If he studies a rose, it naturally classifies all the rest of nature. It stands as the function of sunshine, of rain, of soil, and of air. It exactly classifies the insects that visit it, and he himself takes his place in nature with respect to the rose. All nature becomes to him the rose and himself: and such study is eminently true to life.

When this picture is carried into the school, complete in its wholeness, and beautiful in the delicate balance and proportion of its parts, it is disregarded and shattered as a mirror struck by a stone. The school labors for long years to gather the fragments together again, but they are as a basket of rubbish — the charm of the original picture is forever gone. This is why all people love nature, but many hate science, or at least are indifferent to it. Science to them has been but the systematic means of destroying their nature pictures; and so far as this is true it has not been true to life.

The real function of the school is to preserve the original picture in all its completeness and further to develop it in breadth and in detail. The school's chief business now is to take the child from nature and cut him off from the original sources of material. Where once he had daily and untrammeled intercourse with things he loved, in the school program his contact is limited to the occasional excursion, when he is hampered with the feeling that he must see or learn some particular thing. Again, the nature-study of the schools becomes a discordant note in his life.

One of the most useful things that the schools can do for children is to make them skilful in the various forms of expression. Both in school and out of it children are being stifled in their growth through a lack of adequate means whereby they may express themselves. In terms of psychology, expression is the means by which we study and define our images. It is the one way we have of finding out the status of our mental life, the value of the intellectual products, or whether there is any product at all.

Left to himself, the child exhausts every resource in his attempt to do this. He continually extemporizes ways and means of expressing himself, and while they may be crude and inefficient, they are of untold educative value, because they represent an intense effort to adapt a means directly to a definite end. Nothing creates so great a demand for expression both in variety and amount as the study of nature. We live in the domain of light and color. First and last our world is a world of color. By this sign more than any other the children, and grown folks too, know nature. As the sun pursues his noiseless course, he paints the panorama of the seasons with the many hues of the landscape. Morning, noon, and night, in light and in shade, the invisible artist is at work giving us new creations in color with every hour. When the earth wakes in spring and summer, color is the symbol and guarantee of life, and it is the most striking witness to its great abundance. In the winter the metallic and earthy shades of the lifeless world are not less beautiful and attractive. The coming and going of color mark the ebb and flow of health in the human being, in the tree, and in the grass; in short, it is one of the most reliable means we have for a scientific interpretation of nature. Yet in most of the schools the subject of color as a means of expression is treated as if the children were born blind and were ever to remain so. Where color work is introduced it is almost always simply a daub here and a daub there, which in no way tells the coherent and beautiful story of nature. When the pupil looks at nature and then turns to his paintings, he finds his picture in fragments like shivered glass in a basket; and once more he finds the methods of nature-study untrue to life.

In his contact with nature the pupil becomes aware of her forces through the work they do. The silent sunshine lifts millions of tons of water from the seas, and with it bedews the earth. Like a miracle unthinkable quantities of vegetation are called from the soil and air, and given an existence when apparently nothing existed before. The prodigious operations of nature on every hand are challenged for him to measure himself against them, and to turn them to serve his purpose. It should be the work of the schools to give him the training and the tools by means of which he can command these natural forces. The "how much" and the "how strong" are questions which goad him from every side. But the one subject that would do this — mathematics — is so hideously taught that he goes through his whole school course without once ever suspecting what its real purpose is. At the end of eight years of so-called training in mathematics he leaves the public schools with his conceptions of quantitative relations in nature as poorly defined as they were when he entered.

The same may be said of his knowledge of form and proportion. Manual training is affording some assistance in this direction, but there is not half enough of it in the public schools. It is still confined to things that have no important function. In its relation to nature study it should give the pupil ways and means for testing nature's forces, and of utilizing them in the world's work. To this end there should be an enlarged opportunity to work in both wood and iron, and the shops should be open to the children every day the world around. The artistic side of the child's life is not stimulated, because he has little or no training in expression through the use of plastic materials. Nature's forms everywhere interest him, but his study of them is limited; it never reaches the stage of artistic development, because he has no appropriate means of expression which will enable him to examine, correct, and develop his images of forms. Clay, wax, sand, and plaster offer these means, but their use is an innovation, whereas they should be as common in the schoolroom as a sheet of paper or a bottle of ink. For lack of adequate opportunity to express himself in these various ways, a large part of the energies that are started and dimly outlined by his contact with nature are never developed at all. They shrivel up and pass out of consciousness never more to return, because our methods of study and teaching are not true to life.

Thus far I have dealt with the intellectual sides of nature-study, and have tried to point out some of the falseness practiced by the schools. There is another aspect even more important than these, but teachers have not yet advanced sufficiently in their appreciation of it to even rouse a discussion. Yet until this question is properly settled nature-study will never be more than an expedient, a time-killer, a kind of convenient busy-work in the schools. It will be in great danger of displacement by the next fad until this highest of all educational problems is thoroughly studied and a clear and definite decision is reached. I refer to the relations of the subject to the moral life of the pupil. No study can possibly be true to life and retain a permanent hold in the curriculum that does not drive straight for the great center of all interests in this world—human conduct. The faith that the continued and accurate reporting of their observations in nature will, in time, train them to be honest represents the highest view of the average teacher who even considers the subject at all. But in this respect nature-study has nothing to distinguish it from any other study. When the pupil is called upon to recount an incident in history, he is under as strong obligations to tell the truth as he is when he weighs a substance in the laboratory or reports any other observation. If this were the only claim that nature-study had for training in character, it could be supplanted by any other study in a course, and, so far as the moral result is concerned, it would never be missed. It is precisely for the reason that teachers uniformly believe that the training in nature has nothing of higher worth than this incidental value that its place in schools is rendered at once indefinite and uncertain.

When we look for the last effect of the highest studies upon the human being, we seek for it in this character; but when we inquire for the ultimate effect of nature-study, we usually are satisfied to go no farther than the clothes he wears, the food he eats, or the house that shelters him or the money it puts into his pocket. The infinite beneficence of nature-study in improving these creature comforts cannot be overestimated, but they are not the end; they never can be more than secondary. What the creature *is* who is clothed, fed, and sheltered must always be the paramount and primary question. The final query can never be, Is man *comfortable?* but, Is he good; is he trustworthy; is he reliable; is he honest; is he kind and unselfish? These questions call for the qualities that education must develop by ***positive, not by incidental, means.***

There is but one question today worthy the attention of those interested in nature-study, and that is: Can this subject put these moral qualities directly into human character as effectively as the lessons of history do, not excluding Christ's Sermon on the Mount? There is not a community in this country today so stupid that it would permit a teacher to present the lessons of history to their children and leave out the story of Washington and Lincoln. The lives of these and other great men will be rehearsed until the last moment of time, because, independent of country and age, they give a profound and permanent uplift to the character of those who learn the lessons they teach. But there are few communities today where a teacher would be denied a footing because he could not teach nature-study to the children. From this fact, while neither the time nor the place will admit of its elaborate defense, I submit the proposition that in this its most vital aspects the teaching of nature-study is utterly false to life. If the stories of Washington and Lincoln make for character, and the stories of the frogs and snakes do not, then out, I say, with the frogs and snakes; I for one will have nothing more to do with them. If the lilies of the field point not "the way, the truth, and the life" as clearly and as unerringly as Christ himself did, then let us waste no more time upon the lilies. The supreme test for the value of nature-study is now at hand. For fifteen years teachers all over this country have bravely struggled to get the children in touch with nature. Books have been written by the score suggesting endless ways by which this may be done, and detailing devices to make the study interesting and pleasant; and substantial ground has been gained. During this time many burdens have been lifted from the pupils, and the teacher's work has been greatly improved. But the period of diversion is approaching an end. Not that the study of nature is to be less pleasant and interesting, but its purpose is to be more serious, more definite, more manifest.

The task now set for the friends of nature-study is great. It is not without deepseated result that for centuries mankind has been taught that the world and the flesh have been the joint partners of the devil. That nature-study can be a positive stimulus to the moral nature of man is a proposition resisted by the prejudices deep-rooted in the ignorance and bigotry of two thousand years. From the standpoint of moral development, man at first feared nature as something that was bent upon his eternal ruin. Then he despised nature as a stifling incubus upon his spiritual life. Today he regards nature as neutral and her teachings as irrelevant. This entirely false view of nature has given rise to an equally false and utterly misleading classification of studies in our curriculum; namely, the humanistic and scientific. We may study man *and* the *tree;* but we *must* study man. This partial view must always give undue precedence to the so-called humanistic, to the corresponding detriment of the so-called scientific. Whereas in the not distant future we shall find through the study of nature a proper evaluation of the so-called humanistic studies, it will be in the delicately balanced scales of science, it will be according to new standards of morality set up by a study of nature, that the true worth of all studies will be determined. When this is done, then all studies will be humanistic. As long as the ancient, but now almost obsolete, dualistic conception of man's nature prevailed; as long as man the *spiritual* being was set over against man the *carnal* being, so long has the house been divided against itself. But through the study of a nature—of life and its conditions—from that tiny sentient speck that, somehow, came into being in some sequestered spot, in some mysterious way, countless ages ago, down to the magnificent functions of a great brain that in its sympathy embraces the world, we are slowly getting rid of our primitive conception of a divided man. When at last our study shall no longer be *man* AND *nature,* but *man* IN *nature,* then will it be for the first time possible to have nature-study absolutely true to life.

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A WORD OR TWO ON SELF-ACTIVITY IN THE SCHOOLROOM.

It is perhaps a commonplace to say that one of the essential qualities of a man of power is ability to handle himself in strange situations in which he may be placed. Put two men down before the same problem in a field with which they ought to be equally familiar so far as their opportunities are concerned; let two statesmen attack the question of imperialism, for instance; or two physicians combat a new and desperate disease; or two teachers attempt to discipline a group of disorderly students; or two engineers endeavor to construct a bridge across a chasm. The man of power in any case will work his way through his problem; he will organize his experience with somewhat similar problems and use it to help himself in the present emergency; he will be dynamic, aggressive, original. But the weak man, not having dealt with exactly such situations before, is helpless now. He cannot draw upon his past for help in the present; he cannot mobilize his experiences, as it were. The complex problem before him, though it contains only factors with which he is, in their isolated form, familiar, yet it overwhelms him, and he withdraws from it, or stands before it sicklied o'er with lack of thought. The man of power always feels within him the ability to cope with new situations at all related to those with which he has dealt previously; but the weak man sees himself defeated before he begins the attack. His courage oozes out of him, and he grows flabby and inert.

The statesman of power believes that he can analyze out the various factors involved in the question of imperialism, and he can in the light of past conduct mark out a route for the present; so he girds up his loins and moves on the enemy. The physician of power can utilize his observations, gained in the treatment of all kinds of disease, to interpret the more or less strange case presented in the patient before him. The weak man, having never diagnosed just such a malady, does not now see and he cannot determine what certain peculiar manifestations mean in reference to underlying principles. His experiences are fixed in certain forms or models or casts, and he cannot break them up to make a new model, choosing elements out of several of the old ones. His ideas adhere to one another as they were originally gained.

And then the weak man has never used his experience as a searchlight to explore dark regions; he has drawn back from unknown lands. He has either been afraid to be a pioneer or has not been willing to undergo the hardships of such an adventure. So he keeps to the beaten tracks. He does what he has previously done, and what he has been shown how to do. Therefore, when he finds himself face to face with an original problem, he is not equipped to attack it, because he has never undertaken such a task. He has none of the feelings or inclinations or confidence of the explorer; he has no sense of what it is to search out anything new, or how to go about it. So he accepts things as he has known them to be, and turns aside from everything unfamiliar, or treats it just as he does the things with which he is acquainted.

It will doubtless be granted by all that education should strive to develop in the young the aggressive attitude toward the world, for this is the essential requisite for individual and social prosperity. The individual or community that makes no improvements upon what has come down from ancestral times, in respect either of material or of social matters, must ultimately degenerate; for it seems to be a law ot life that if there is not evolution there will be degeneration. In order even to preserve what is it seems necessary to be always striving to achieve something better. From those who have but who make no additions thereto even that which they have will be taken from them. Let a man of business cease striving to improve his methods, and he soon begins to lose even what he has achieved. Let the teacher stop growing, and it is not long before retrogression will set in. Nature seems to have planned profoundly for the continual evolution of mankind, and she visits a severe penalty upon those who refuse to co-operate with her in her efforts. Happily, though, she has endowed most individuals with the disposition to be continually improving their lot, to be achieving a more perfect mastery of the world in which they live, so that they may thus obtain a happier and more effective life.

And what education must seek to do is to perfect this instinct and so make it effective in all the complex situations in which people are likely to be placed. Unfortunately it appears not to be so deep-rooted but that educational methods may stupefy it. We have all seen persons, and many of them, who have lost the power to deal with new situations, if they ever possessed it. They sweep and bake and knit and whip their children as their mothers and grandmothers before them did. So there are farmers who sacrifice a good deal in order that they may kill their hogs when the moon is waxing; they sow and reap according to the phases of the moon, because they learned the lesson from their fathers, and they have no disposition to question the wisdom of the past.

Now, it must be apparent that the way in which a child attacks and masters the situations presented in his spelling and reading and arithmetic and geometry and history and science will tend to establish in him a habit or method of attack which he will in later life employ in business situations, and in engineering, legal, teaching, social, and other situations. Observe a pupil in the very beginning when he is learning to read. Every day he must learn new words. When he encounters a word he has never seen before, the teacher may tell him what it is, and she may have him say it over until he fixes it so that when he sees it again he will be able to pronounce it. Whenever he encounters anything new in his reading the teacher tells him outright, and then he repeats what she tells him until he makes it his own. He never takes the initiative in dealing with new words. He does not use what he knows to help him in a new situation that is somewhat strange. When he runs against the new thing, though in its several elements it may be known to him if he would only try to use what he has already mastered in analyzing it, yet he is helpless, and he trots off to the teacher, who does not help him to use his experience, but makes it unnecessary for him to do so. Why should he be original, aggressive, when he can solve his problems more easily, as he thinks?

So he works along year after year, learning what the teacher or book tells him; these agencies relieve him from the necessity of finding his own way through new regions. Suppose this goes on, as it does in the majority of schools perhaps, during the whole period of the child's school training; how much power in reading has he acquired by the time he leaves school? He has mastered a few things, and these he can use well enough in exactly the way he has learned them, but he cannot employ them to assist himself in new situations. When he separates himself from some telling instrument — the text-book or the teacher — his growth ceases, because he has gained no sense of originality or independence in reacting upon this phase of his environment. He has no interest in pushing into new fields of literature where he will encounter new terms, because he cannot use what he knows to interpret them.

There is a quite different method which some teachers employ, but which leaves the pupil about as feeble and dependent as the first. They have heard it said that the child must be made self-active, that he must never receive any help, that he must dig out everything for himself. And so when he comes to a strange word he is refused aid, whether or not he has a sufficient body of experiences by means of which he should be able to handle the new thing. The teacher urges that, even if the child fails in his efforts, the struggle will be good for him. One sees this theory put into effect every day in the school. Children are trying and failing, and their guardians hope that in some mysterious manner strength will be developed out of weakness. So the child works on, struggling with new situations, and being conquered by them because he does not receive at the critical moment just the aid which will help him to master them. Such a teacher is a prodder; she is not a true assistant or guide. She does not know how to make a pupil self-helpful; when he fails she scolds him and tells him, and he learns by rote. He has not felt the power and gained the skill which come from mastering a new situation largely by his own effort. And after one has had a few years of experience with trying to make out new words in his reading, and much of his effort has proved of no avail, and he gets scolded as the reward for his efforts, there is not likely to be developed in him a disposition to move vigorously on to new situations. Nature has not constructed the human mind so that it will keep straining itself to accomplish something when after repeated trials no valuable ends are achieved. She is not so wasteful of energy as this.

But there is a third way in which one may deal with a child when he is learning to read, regarded as a typical sort of school activity. When he is confronted by a new situation, the wise teacher knows whether he has already mastered anything which will help him in the present emergency. If he has, she throws him upon his own resources, reassuring him that by diligent application he can achieve success. But she follows him closely in his efforts, and does not let him struggle too long without success. Before discouragement overtakes him she gives him just the suggestion which calls into the foreground of his consciousness precisely the experiences which are related to the situations he is trying to master, and then he can see his course with reference to it. The new situation may contain no elements with which the child is not familiar, but when they are placed together he is confused by their association. His attention is distracted from a consideration of the several elements, and is dissipated in the attempt to comprehend the whole thing at once; and, the thing as a unit being unfamiliar, there does not arise to hand what he has already mastered. What the wise teacher does then is simply to direct the attention of the learner upon the familiar elements in a new word or a new problem or a new sentence, or any new thing. As she works day after day according to this method she develops in the pupil a tendency to analyze things for himself. He comes gradually to take the initiative in withdrawing his attention from the new whole which confuses him, and in noting the various factors thereof; and he acquires the power also of synthesis, or organizing parts into new wholes. And this develops efficiency, for it gives the ability to deal with new situations without being dependent upon someone else.

We have here glanced at one of the simplest situations in teaching; but if we look at more complex things we shall find that the same principle holds there too, and in a more important measure. Take the teaching of geometry, for instance. In some of our schools one can hear pupils reciting off demonstrations as they would pieces from the rostrum. The proofs of propositions have been given in detail in their text-books, and they have learned them by heart. Anyone who chooses may hear pupils in our high schools who set out to show that a given theorem must be true, and before they reach the conclusion they get mired. Then they go back and start again in the hope that the vocal series which they tried to make automatic in the learning of the demonstration may become re-established by another effort; possibly they can catch up the dropped link by starting at the beginning of the chain. Such pupils never look at their constructions in the attempt to see for themselves what the relationships must be in the light of what they have already proved to be true in the past. But, to be more precise, they really have not proved anything in the past; they have memorized proofs that someone else has made.

And even if there is occasionally a student who memorizes a demonstration and then traces it out in the concrete problem before him, still he is not developing habits which will give him much power in the real situations of life. His mode of attack is always in seeking aid from sources outside himself. He has to be told how to proceed; he is not required to make out his own course in the light of what he already knows. When he lays aside his geometry, he has not gained the power which that study ought to confer upon him, either in dealing with geometrical problems or with the more intricate affairs of daily life. Suppose that, instead of having him learn the statement that the sum of the interior angles of a triangle is equal to two right angles, for example, and then learn the argument all made out for him, we ask him to find the sum of the interior angles of a triangle, and tell him nothing. He knows enough to solve the problem if he *will only use it*. If his mind does not work aggressively on this problem, we may set it going by asking him a question which will bring into the focus of consciousness what he has discovered regarding the properties of angles: "Do the angles at

A and *B* suggest anything you have proven heretofore?" "What have you shown heretofore to be true about the sum of angles?" "In the problem before you how can you make situations like others you have already had?" A few questions like this will make experiences in even the dullest mind dynamic to some degree, and the disposition to be self-helpful will be fostered.

When we consider such studies as science and history that ought to deal with complex relations which must be met by everyone, no matter what may be his particular vocation, we can see how vital it is that a method of study should be adopted which will develop habits of independence and originality in respect of the matters of which these subjects treat. The learning of dates and names from a text-book in history and the memorizing of statements about men and events do not equip the pupil to deal in any effective way with the social problems which history ought to help him to solve. It does not make him in a true sense social-minded, which the Committee of Seven says is the supreme object in the study of history. He has not reconstructed in his own thought and feeling the social situations which ought to be described in historical study. His mind is not filled with types of social action; verbal symbols have taken the place of images and feelings. And the schools are every day turning out into the community boys and girls who are quite unready to adjust themselves to the social, and more especially political, environments in which they are placed, because they have not been got into the habit of ferreting out principles of human nature in the concrete social life about them.

The same thing is true in principle of the study of nature, when the learning of things by rote is the method employed; when one spends his time memorizing what someone else has said about the phenomena of nature, he cannot be gaining that power which will enable him to search out the causes of happenings in the world, and give him stability and sanity in this bewildering complex universe. The memorizing attitude does not give much efficiency when one is face to face with nature transforming herself every moment into something new. There does not live in his brain real situations in nature that spring forth to welcome any new event, so that the mind feels at home with it immediately. To the book-taught individual much of that with which he comes in contact in the real world is more or less strange and always remains so. And what is more serious, such a one does not possess the power of detecting the respects in which things differ from each other, or themselves change from day to day. As I said above, the book-taught mother cares for her children just as she remembers her mother did with her, or as she sees her neighbors treat their young ones. She makes no allowance for individual peculiarities, or for the incessant fluctuations in mind and body of any one individual. When she thinks of her children she is conscious of what she has heard or has been taught regarding them, and not of the individuals before her; she thinks of her rule and not of the children. And the principle is universal.

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THE EDUCATIONAL VALUE OF FAIRY-STORIES AND MYTHS.

STORY-TELLING is an art almost forgotten at the present day, and the story-teller is becoming more and more a figure of the past. What has become of the chimney corner with the cheery fire, the eager, happy children, and the good old granny who knew stories without end? The story hour, the children's hour, seems to have disappeared with the spinning-wheel, the hand-loom, and the fireplace. But the longing eyes, the open ears, mouths, and hearts are with us still and demand "the story." The nature of the child does not seem to have changed, and we are forced to ask ourselves, first, What is the cause of the demand? and, secondly, How may it be satisfied?

In this wonderful world nothing is too wonderful to the child. He knows his own power to do; so to his mind all things that do will to do also; the wind, the trees, the sun, even sticks and stones, seem like himself powers that exert their will. He knows but little of the laws of nature without, and of nature within self; but in his soul there is an instinct of wanting to know; there are longings, hopes, a groping for the truth. The demand for stories is an expression of the child's desire to learn more of the wonders of the world around, to get at the heart of things, to come into personal, intimate contact with the universe.

The fairy-story expresses the unconscious longings, hopes, and struggles of the child. It speaks to him in a language he understands; it gives expression to that which he feels but dimly and sees but darkly; through it he catches glimpses of laws governing human life; it interprets his own thoughts to himself; it gives him a perspective of this world and unconsciously influences his actions. But if this is the educational value of the fairy-story, the question naturally arises: Where are the stories to be found which may be such forces in the education of our children? Is there a test that will show the genuine value of the story to the child?

The story must bring joy—and this is, if we understand rightly what joy means, a good test for a story. A mentally healthy child will never come to love literature which is merely entertaining, merely instructive, or merely moralizing. His desire is for more than this. The child wishes to know, to think, to feel, to grow, and develop in all directions—this is a fundamental law of his nature.

We are often in danger of being so æsthetically aristocratic that we throw away something which is dear to child-nature, because we do not think it has great enough literary value. A great deal has been said and written about the myth and the fairy-story: that they give to the child wrong conceptions of human life and of nature, and that they in their fanciful dress have no place in the education of our children. But if we suppress the myth and the fairy-story, what are we to put in their place? Surely not our modern made-up fairy-story with a moral or scientific truth tacked on to it.

Once, in the childhood of the race, man was in many respects like this restless, hungering, groping child of ours. His environment asked him How? Why? and demanded a reply. The reply is the literature of that day—myth and folklore. The experience and wisdom accumulated by the race in the past found a lasting expression in the myth and fairy-story. Here man's innermost thoughts and feelings are revealed. The religion and art of the time, all that primitive man felt deepest, loved or hated most, is expressed in song or story, or was carved with loving hand upon his crude utensils.

When man was young on earth he had the happy characteristics of childhood: spontaneity, joy, light-heartedness, and a superabundance of energy. All these characteristics we find in the stories he told, and that is why folklore, the primitive myth and fairy-story, are an unfailing source of enjoyment and inspiration to the children of today.

It is not easy for us to become like a child again. Our modern made-up fairy-tales have many weaknesses. There is the tendency to preach, the overaccentuated moral teaching, the conscious analysis and philosophy of the adult, merely disguised as a fairy-story.

It is worth our while to look at the characteristics of the genuine fairy-tale. It is most natural that man first fixed his mind on the external phenomena which had so much to do with his well-being — the sun, the rain, the storm, mountains, and seas; and that at first most myths and stories were explanations of these natural phenomena. The natural world around him was believed to be ruled by the same forces and motives as those which determined his own actions. In order, therefore, to understand the universe, he must understand human life, as the knowledge of one was the knowledge of the other. The more he understood human life, the better he understood nature around him, and *vice versa.* His explanation of nature, therefore, became a portrayal of human life; and it is as such, as the beginning of literature, that myths and folklore have an educational value.

With the enlightenment on scientific questions the nature-meaning of the myth was soon lost sight of, but the human element contained in it was indestructible, and has been the germ of great literary productions in all ages. Educationally speaking, therefore, the nature-meaning of myths and folklore is of absolutely no value. The form in which they are handed down to us dates from a time when man was conscious of no such meaning. The efforts that have been made to convey to the child scientific truths through the medium of ancient myths show very little understanding of the true value of myths.

We are often surprised at the keenness of early man in detecting the essentials in human character. How much it is like that of today! And as the story-teller of old in his fanciful way gives us pictures of human life, we recognize that truth applies to all ages; and so each age has interpreted the story according to the scope of its understanding. The story has been the novel and the drama of the past. Some are great classics, true mines of inspiration.

Here are some of the ideals which we constantly meet in the fairy-tales: First, there is the boy who goes out into the world to seek his luck. Vaguely he seems to feel that the world has something in store for him, if he seeks it. Going a step farther, we meet the youth who is more conscious of his aspirations. He goes forth to meet serious obstacles, which he must overcome, if he is to win the princess and half the kingdom. At last comes the hero whose whole life is spent in overcoming trolls and giants, yes, who is ready to lay down his life to save his people. Man in the story-telling period seems to have come to some definite conclusions: that human nature is good and kindly; that *good* will in the end overcome *evil;* that strength and stature are not always wise; and that wit and wisdom never fail to carry the day against mere brute force.

We find different stories expressing different phases of life—the serious, the humorous, the sublime, the ridiculous; and that there are stories fitted to all steps of development and to all occasions. You may find this material in the literature of strange people in far-off lands and of far-off times, but their stories are not strange or foreign to our children. The universal child-thought is expressed in universal child-language. We have, therefore, a wide field to select from, if we only have the wisdom to choose.

It is a great fallacy to believe that the story may be applied like a plaster or medicine for moral weaknesses. Often mothers and teachers ask: "What stories shall I tell to my boy who is not always truthful, or who is selfish, etc.?" It is not for literature to assume the power to teach moral laws. It were useless work for it to hew at the ethical nature of the child with unceasing hammer strokes. Still this conception of the use of the story is most prevalent, if one is to judge from the books published and the stories which are told in kindergartens, in Sunday schools, at home, and in the regular school.

The story must find the quiet way that leads to the heart. It must make the child aglow with a warmth which unfolds the desire for the good and beautiful as inperceptibly as the buds are unfolded in the spring. It must come quietly, discreetly, so that something is set vibrating in the child's soul, which will lead to action. Literature may inspire and awaken noble impulses when it is artistically presented, but will become worse than useless unless the child finds all around him chances to act upon these impulses. Nothing but work which calls for truthfulness, and conditions which give opportunities for unselfishness, can help a child lacking in moral quality.

There must be no gap between story-land and the actual world in which the child lives. When the emotions are aroused — such as courage, kindliness, pity, self-sacrifice — the child must find something to act upon, something to do that requires these qualities. Many well-meaning writers of modern fairy-tales seem to go about their task in some such manner: They look at the virtues which ought to be sought and the vices which must be shunned. One or more of these are selected for the theme of a tale, and it may be a cleverly written tale. But if you and everybody else who read it feel and know that this story was told in order to teach this or that moral, you may be sure that something is wrong. Great novels and dramas are not made that way; neither is the child-novel and the child-drama. Healthy, normal children will have none of it. The writer may even cleverly disguise his motive, but in spite of him it lurks in corners and springs out when he is not aware. This kind of a story is, unfortunately too common.

Perhaps you have noticed how the "moral" story acts upon a child. A little girl said one day, when the talk was of George Washington: "I don't think much of George Washington since I heard the story about the hatchet. He must have been a very untruthful child, since they made so much fuss about his not telling a lie." Another girl said, when I asked her if she liked to read stories: "Yes, very much, but I always skip long descriptions and the preaching."

Classic literature, whether for the adult or for little children, merely seeks to place life in its many aspects before you — for you to observe, for you to interpret, for you to take that which you need.

An apparent enmity exists between the study of science and story-telling. The child's relation to nature around him is an intmate personal one. Hills, forests, streams, flowers, are friends, who inspire him with love and confidence. As the child grows older and his scientific knowledge of the world increases, this feeling of friendship toward nature becomes stronger, but of a somewhat different kind. From a perfectly subjective point of view the child by the help of science is able objectively to view nature without and nature within self. There is no break between the story stage and the science stage, only development of ideas; and the true story spirit toward nature is never lost, but runs into a wider channel, giving color and emotion to scientific realities.

It is to be hoped that side by side with science-teaching the myth will maintain its place, not as an antagonist, but by its spirit a faithful companion, supplementing and making the other more complete.

It is a fallacy to believe that science needs to borrow the fanciful dress of the myth; it can well stand alone and hold its own. This sugar-coating of scientific facts, so common in our day, shows our inability to understand child-nature. Three-fourths of the so-called science-reading for primary pupils consists of such material as the following:

> Some tired little raindrops lay in the grass. "Come with me and have a dance," said the bright, sweet sunbeam; "but you must put on your white dresses first." And she kissed each one on the cheek. Then suddenly they felt themselves so light and danced high up into the air. But what should happen? Mr. North Wind was out for a frolic too, and when he met the little vapors, which we now must call them, they grew so cold that they had to put on warm winter clothes.

Such reading matter — literature is not its name — the healthy child naturally resents, and, however well intended, it appears just as affected and artificial to him as it should to us.

The fairy-tale or myth may have its origin in some observations of nature, but note the difference. Primitive man gave expression to all he knew, to his interpretation of the facts about him, to his honest feelings which were aroused. This made-up science fairy-story is written by a man, I think, who possesses the modern scientific knowledge, and is in form only, not in spirit, a story-writer.

Of late efforts have been made to select appropriate myths to correlate with science. In this attempt the mother and teacher have often yielded to the temptation of reading into the myth scientific truths that are hardly suggested by the original.

It must always be kept in mind that the myth is a very partial scientific truth, and can therefore not give expression to the modern knowledge of science.

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SOME CONDITIONS OF EXPRESSION IN THE SCHOOLROOM.

It is not many years ago since the very idea of expression in the schoolroom was practically new. The old-time view was logical and simple. What could the child express, what could he think? Had he not come to school to learn, and not to teach? His place was to receive, and the only object of having him say or do anything was to see whether he had received what the teacher intended he should. A step farther on teachers found out by experience that saying and doing things on the part of the pupils not only formed a test, but that it actually increased their receptive power. This insight became crystallized in the maxim: "Expression is impression." This, however, and the movement back of it, still take impression as the real aim, while expression is related to it as a means. Since this is so, we are forced to ask: In what sense does expression which is thus subordinated succeed in being expression at all?

Let us look at it first from the standpoint of adult life. Suppose a person speaking to you is doing so only in order to impress what he is saying on his own mind, would you feel that what he was saying was really an expression? If I, in writing this little article, only desired to impress the ideas on my own mind, where would there be any expression, except perhaps of an accidental nature? No, an expression to be an expression must be intended as such by the person who makes it. Let us look, then, at this intention and what makes it up. Any intention is, of course, essentially an attitude or act of will, but the particular one of expression always involves some other person or persons. In this little article I may have misinterpreted my audience, but I am certainly thinking of a definite kind of person. In any expression the person to whom it is directed is as important as the content of the expression; in other words, the idea of the person spoken to is a condition of and determines the expression itself, not only in its form, but also in its content.

Everything cannot be said to everybody. Cast no pearls before swine, not only because it is wasteful, but also because it is hard on the teeth. There may be nothing wrong with the swine.

To what extent does the idea of the person or persons spoken to further or retard expression as it is found in school? There are two typical situations in view of which this may be considered: (1) The pupil is addressing the teacher, and has him or her in mind while he frames his speech, drawing, written exercise, or other sign. During this he may realize that he is being overheard by the rest of the class, although frequently this enters into his mind so slightly as to be almost inefficient in action. (2) The idea of the class or certain members of the class may become inportant, and what he is saying is really addressed to them and measured by the effect it produces upon them, whether the teacher be formally addressed or the class addressed directly, sometimes as also including the teacher. These two types of reaction are capable of shading into one another, and in certain conditions one extreme as well as the other can be shown to be justified. As one observes most recitations, however, there seems to be a very marked proponderance in one direction. In one school, for example, which I observed for a week, I found 97 per cent. of all the questions asked propounded by the teacher, and the 3 per cent. asked by the pupils never leading to any further development. No one can fail to admit that a very large number of the recitations made are directed in intention to the teacher.

When recitations from lessons previously learned by the whole class are used, this is necessarily so. In such cases the aim of the pupil is to impress the teacher with the excellency of his reproduction. The idea in itself is indifferent to him. He does not feel that he is communicating anything, since the teacher is supposed to know beforehand everything he is saying. Although going through the motions of social participation, he is in reality a picture of isolation. To say to him, "Speak so that the class will hear," or "Turn to the class," is but to deepen the irony of the situation. The mechanical excellence of the reproduction is the only expressible reality left him.

There are, however, forms of recitation in which nothing has been previously given in order to be learned, where the same unworthy hollowness exists. This is particularly true of the "development method" used by many (perhaps only "so-called") Herbartians. To see the story of *Robinson Crusoe, e. g.*, "drawn from" pupils who have never previously heard it, would give one a weird feeling of the power of infant logic; if the illusion were not so plain. Given the conditions — lonely, desert island, favorable climate, etc., etc.— different imaginers can make very different stories, one just as logical as the other. In fact, the children do offer all kinds of propositions, some of them delightfully childish. There comes to mind the answer of a child who, being asked what material she would use for building, said she would need some nails. Where would she get them? "At the grocery store." "But there is no grocery store." "Oh, I would go on till I found one."

Not logical from a narrow adult standpoint, but very real and natural. Practical enough, too, if the possibility of error is recognized as human. More than that, it is really logical. Our modern writers on this subject, if they have done anything since the time of Mill, have at least convinced us of the importance and, from one standpoint, of the ultimacy of induction, which means essentially the testing of a mere "working hypothesis" by the facts of experience. To find by such experience that the hypothesis is wrong is just as educative and just as logical as to find that it is right. No, it is not by the children's own logic that *Robinson Crusoe* is "developed." It is by means of the Jove-like (and also Juno-like) teacher's nod. It is a simple device: the teacher accepts those answers that are "right."

What does this condition of affairs make of expression? Although the teacher may fondly suppose there is in this a discussion, it is not really so. The aim of the pupil is simply to find out what is in the teacher's mind, not to communicate or to develop what is in his own. He does not intend to address the class, but the teacher, and the only reason for hearing what anyone else may say is in order that he may not use over again the same particular notion. It may be asked, however, if this is not really an exercise in induction? It certainly is, but it is the teacher and her hints and expressions that are studied, and not the subject. At this point thinkers who commit the same fallacy as Arnold Tompkins, *e. g.,* cut the Gordian knot. They say in effect: "But we realize that the subject of the lesson is always the subject as it exists in the mind of the teacher, whether he be represented personally or by a text-book. It is self-activity all the same, and the business of the pupil is to study this self-activity and make it his own, however it may be deposited.

This is only one side of the truth, but when the pupil honestly thinks it the most worthy thing for him to do so to study the teacher or the text-book it is then also the whole of the truth for that particular situation; but what goes to make it thus is the fact that the pupil freely, or with a consciousness of freedom, planned it so himself. If the teacher has the skill to make what is in his mind so necessary and interesting that the pupils feel they need to get it, this is a perfectly legitimate and honest relationship. It is one, however, in which the teacher expresses himself, and not one in which the pupil expresses himself. But even from this standpoint, whatever is true of the higher schools, no one can doubt that for a large part of the time there is no such feeling on the part of pupils in the elementary and grammar schools. It is because of this that tricks or "devices" are used to make an apparent or temporary necessity and an apparent interest sufficient to hold the pupils in the presence of the teacher. If pedagogy consists in the detailing and the classifying of such methods, it is certainly the footpad of the moral sciences, and teaching becomes the polite art (with a good deal of coercive force back of it) of holding up the children.

No, as everyone sees, there must be real, not simulated, willingness. But can anyone suppose that a willingness simply to find out what is in the text-book or the teacher's mind can persist for five hours, and including home work for ten hours a day? Shall we then cut the hours shorter? That does not follow. On the contrary, why not give a real chance to the other side, the individual-pupil side of life? A child wants sometimes to give as well as to get, to do someone else some good, or even some harm or annoyance if nothing better. It is tiresome to go through the mere motions of expression, and to fail so often of the reality. At last one gets a little paralyzed and does not care; sometimes adopts the school attitude, when on no account one reads out of school anything even remotely like what he reads in school, or in the effort to understand the process as a whole turns it into a drama with one's little friends, usually a comedy in spite of the elements of tragedy contained. To those of us who feel with children it does not seem as if this is all that childhood has a right to have.

On the contrary, there must be expression in the school, and it must be real. Such expression must be meant to be a communication, and therefore framed with the view of some other persons in mind. These conditions seem impossible with both the so-called development method, as usually applied, and with the old-fashioned text-book and lecture method. Of the two the text-book or the lecture is at least more economical and direct.

Now, so long as we regard the subjects of study on the school program as already completed, and therefore, to be learned, the pupil must submit himself to the text-book or the teacher. Any real expression on his part is not only secondary, but idle. Such work should be wholly planned out, administered, and executed by wiser heads. To leave mere details of plan to the pupils, as to the private in the ranks, does not change the plan. The details are supposed to be foreseen by the wiser heads. If we are logical, we may even see that with such an ideal, the fewer the pupils the better; or, in other words, the finer the grading the better. One pupil in a grade would be the best, but since this is practically difficult on account of the expense, approximate it as much as possible, as does, for example, Superintendent Search. Such a course, too, would be much more perfectly adapted, if we only knew the exact mental and physical condition of every pupil beforehand; or, lacking this, at least such a previous knowledge of the average pupil of various ages, or a refined knowledge of the stages of growth. In a word, as educators we would attempt to predict everything beforehand, scientifically and accurately. Now, given that we have a pupil who merely wants to learn what is in the teacher's mind or in the text-books, it would seem as if the rest of it might be previously planned; but this is only on the assumption that we already know the pupil's plan. If it is a very simple one, namely the getting of whatever ideas are presented to him, and the reproduction of these, I suppose we can run a certain kind of school on these lines. Poverty-stricken as this idea of the pupil is, it is very largely the idea that governs the conduct of the present American school, although we are by no means responsible for its inception, but have inherited it weakly from the past, long after the rights and needs of the individual have been appreciably vindicated in other spheres. Even in such a helpful book as Professor DeGarmo's *Interest,* we are not advanced beyond the thought that the school life should essentially consist for the pupil of "self-welcomed problems," leaving it entirely to the teacher to propose these problems, and presumably to know the answer beforehand. Most of our books on pedagogy contain the presupposition of self-activity. The way this is taken, however, is much as indicated above, viz., the assumption that we are dealing with a pupil who desires in a general way to learn, or who keeps to the simple plan of getting ideas that are presented to him, and possibly reproducing them with accuracy. Should the pupil want to do something else, this kind of self-activity is ruled out of pedagogy. As a result, we find the books on teaching really dealing with what the teacher should do at best, on the supposition of the above simple plan of the pupil, at worst as to how he may be persuaded or compelled to confine himself to such a plan in action at least. The contrast between such treatment of self-activity and that of certain modern writers on this state is truly remarkable. Of this Bosanquet might be taken as an example, when he shows that the essential duty of the representatives of the state is summed up in the maxim, "Prevent hindrances," thus assuming that things are going on even without these representatives, and that the self-activity of the citizen is real and evolutionary.

Now, it will be said that this is just the point, viz., that there is an essential difference between citizens and children who are not citizens. This may be so for the state. But what is the school? Is it not simply an institution for the training of citizens? This has now become such a commonplace that we fail to interpret it in the light of our present ideas of citizenship. Here let me emphasize one point only, which is already that of President Eliot. Why train a child to habits which he is not intended to use when he grows up? And why omit the training of habits which he is expected to use? No training in mere obedience and in mere receptivity will ever give a pupil the virtues of real self-reliance, resourcefulness, expressiveness, and self-government.

Here we may remark that the self-government referred to must be concerned with the real work of the school or of those in the school. We do not recognize this to be in all cases the situation when pupils are called in to "govern themselves," for the sake of issues which are planned by the teacher. Here the self-government has nothing to do with what is taught and only amounts to policing. It is only when work is actually willed and planned by the pupils, or in as far as it is planned by them, that any real self-government can arise, and, as we have seen, this is also a condition for any real expression. We must either deny self-government and expression in the school or be prepared to admit that pupils in their own personalities, full of real desires, whether these give rise to whims or wise plans, must be permitted, encouraged, and aided in bringing these out, and in realizing them to the fullest possible extent.

There is no doubt that a considerable body of teachers are already working successfully in this direction. The changes that have come over our school program are very largely a manifestation of such a conception. Domestic science, manual training, industrial arts, nature-study, etc., although sometimes in a state of complete relapse to the mere dictation side of education, are for the most part full of the idea that the child must really feel himself a cause, or a source of plans and projects. Not only here, but in many classes in literature, geography, history, etc., the same idea obtains. The teacher in these cases does get down to the consideration of some of the real plans and even the whims of the child. She does, in many cases, find the child where he actually is, and, instead of outlining an external logical ideal, helps him to organize his own experience, nearer to his heart's desire. It is only in the light of these facts that I venture to suggest, without much reference to detail, the direction, although not the finished result, to which such experiences seem to point.

To some extent at least the school must be made a clearing-house for real life. The term "course of study" is very variously interpreted. Most clever teachers can drive a coach and four through a pretty rigid course of study, if they think it necessary to do so, although the danger is more prevalent that teachers do not live up to the freedom already involved in the course of study. But if the course of study means what the pupils do in school, then expression and self-government must mean that the pupils make a part or contribute a factor to the course of study. If we regard the time-table as a necessary consequence of the course of study, this would mean the planning either of the whole or a part of the time-table. Now, in as far as the pupil desires and agrees in any given program, his plan is identical with the teacher's. But there would seem to be an opportunity here for some differentiation. A certain properly limited section of the time-table and of the program may be devoted to the freer and larger growth of pupils' plans. What this part of the course of study will be it is impossible to say beforehand. That it will not appear to start off in many cases with geography, history, reading, writing, spelling, etc., would seem tolerably likely, and this may be of itself sufficient to prevent such an opportunity being countenanced by most teachers. The pupil's part of the course is much more likely to start off at the very place he finds himself, and to reflect conditions strictly as they appear to him. His first and necessary step will be to say what he proposes to do. What time he needs, whom he needs to help him, what material he needs, if any, what place he intends to work, what difficulties stand in the way, etc. It may be that such proposals are made to others before they are made to the teacher, but ultimately they must be made to her, as it was from her invitation as a school authority that the opportunity started, and she therefore must regard herself as a partner in every plan. This gives her naturally the chance to co-operate and even to suggest, so long as she feels sure the pupils are capable of rejecting or vetoing her suggestions. It also gives her the same right of veto, which, of course, must be exercised sparingly and with the best of judgment.

Now, although in the lower grades these pupils' plans do not usually begin under the name of the conventional school studies, experience for the last three or four years with work of this character shows that they involve these school studies and frequently actually advance them in the pupils' minds more rapidly than has been possible in the ordinary way. The pupil finds out that, to carry out many of the things he really wants to do and thinks worth while, he must use numbers, reading, and writing, drawing, etc., in order either to show what he has done (which is generally part of his plan) or to obtain information to carry out his ideas. As for higher grades, I may say that when pupils' planning has been applied in my own classes in psychology or pedagogy, there is no doubt not only as to the reality of the expression, but as to the actually increased rate of scholarship on the part of the pupils.

Space forbids me to enter as I should like into more concrete details. I will finish with one matter of striking importance. Starting with the individual we have found in most cases that he was already in co-operation with others; that is, apart from the presupposed relationship to the whole class and the teacher. A little group is formed, which is sometimes weeded out and sometimes increased. This little group is the organ of the idea; but, on the other hand, the group modifies the idea. Sometimes in such association there is little left of the original idea but the enthusiasm or personal attraction which helped to pull the group together. These groups have all the problems of real self-government, at the risk of going to pieces if unsuccessful, as well as the opportunity of constant discussion and expression within themselves and at more stated periods with the rest of the class. In the higher classes (as in psychology), groups or committees are used, but are not seemingly so essential. The individual is both more self-sustained and more capable of coming into contact with the whole of the class. Even here, however, there are certain pupils never found at their best unless in the narrower circle of a smaller group.

Some such opportunity of real expression, however it may be expedient to limit it on the school program, is necessary for the best development of future American citizens. The particular form which experience shows already possible is not the only form, or probably the best. Not only must every school, but every class, and every succeeding class in the same grade, pursue somewhat different ideals, but they must also find themselves in different environments, and thus with different means for realizing themselves. In any case, however, and despite the poverty of circumstance, life that is not artificially trammeled is always rich enough to incarnate itself anew, continually manifesting itself in the most fascinating varieties of individual and social growth.

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A FIFTH-GRADE SCHOOLROOM.

THE chief problem of education lies in the difficulty of establishing vital connections between the needs of the immature pupil, on the one hand, and the culture and material achievements of the race, on the other. This demands a selection and adaptation of this material to the needs and purposes of development, and in this way involves the element of idealized make-believe. School work never can consist to any considerable extent of the actual work of the world. The past must be presented as a drama, idealized in thought, pictured by the imagination, and acted out in the motor activity of school exercises.

Our aim is to convert the school exercises into organized play — as earnest as any work, as true as any story, and as educative as any experience. Instead of the factory system of forty or fifty little workers turning out their machine product under uniform specifications, sitting in straight rows at screwed-down desks, the pupils are now grouped about round tables and are led to be mutually helpful, as, indeed, the nature of play requires. The main activity in the schoolroom should be learning, not teaching. The teacher has no platform, nor table, nor chair; he never lectures, nor has he time to sit at a table. The opportunity for work is given, the motive for self-activity is roused, and in most cases there is no need then of compulsory tasks. But those that *will* not, when they *may, must.*

The literary society meets on Friday afternoons. The responsibility for the performances rests with the children themselves. The teacher is a friend to appeal to for help, but the majority rules and not the autocrat. Recitations, dialogues, readings, essays, riddles, jokes, magic, vocal and instrumental music, and a debate, with sometimes a periodical and roll-call with sentiments or quotations, make up the weekly program. Very usually there is parliamentary business of some kind. If a member fails to perform ,the president asks him to state his excuse. Usually a motion to excuse follows, which is then discussed. The chairman of the program committee is usually involved, as it is his duty to arrange the program two weeks in advance. When the discussion is ended, the motion is put to a vote. If the excuse is not accepted, the non-performing member must give a recitation before the school on the following Wednesday morning. The work done for the society is far superior in educative value to any lessons planned and assigned by a teacher for class exercises in English. One of its most important uses is its training of its members to govern themselves and to obey majority rule.

The Chautauqua Junior Naturalist Club meets once a week or oftener for discussions, reading of a paper, or the presentation of some scientific fact. The children subscribe for *Pets and Animals,* Springfield, O. Seven other papers are kept on file in the room: *Puck, The Youth's Companion, Boys and Girls* (The Stevens Publishing Co., Ithaca, N. Y.), *The Bubble* (published for boys by one Karl Keffer, Jr., Charleroi, Pa.), *Nature Study* (Manchester, N. H.), and *The Little Chronicle.*

We keep a daily weather record on the blank shown on the following page. The daily weather maps of the Weather Bureau come to us. The course of the "highs" and "lows" across the country is traced, and the climatic conditions of the entire United States are studied. The blank maps of the bureau are used for summaries and exercises. The weather work not only involves meteorology, but most helpfully drills the geography of the United States, teaches considerable astronomy, and organizes some of the arithmetic work.

For the geography we have a relief model of the northern hemisphere, fifty inches in diameter; chart maps (scale ten miles to an inch) of most of the states separately cut out on the boundary lines; four outline blackboard maps with physical features painted in oil; and several dissected maps of the United States. This material is all home-made, and is more useful and better adapted to our needs because it is so. We are finding great help at present from a miniature river[1] that is eroding its bed through six feet of rock, sand, clay, soil, and slate, from a lake where it rises in the mountains down over cascades and windings to the coastal plain and delta at the seashore.

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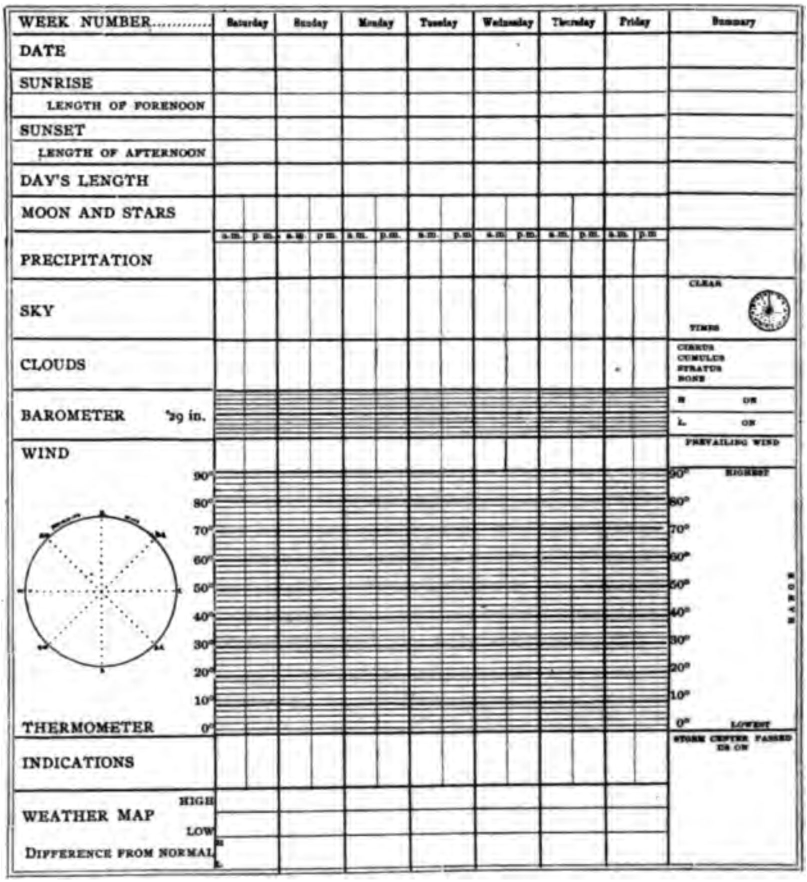
[1] The idea of this working model with a flowing river is due to Professor H. J. Banker, of our biological department.

The physical features of this "Land of Lilliput" are named,

Weather Record of ______________________



WEEK NUMBER...........	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Summary
DATE								
SUNRISE								
LENGTH OF FORENOON								
SUNSET								
LENGTH OF AFTERNOON								
DAY'S LENGTH								
MOON AND STARS								
	a.m. p.m.	a.m. p.m.	a.m. p.m.	a.m. p.m.	a.m. p.m.	a.m. p.m.	a.m. p.m.	
PRECIPITATION								
SKY								CLEAR TIMES
CLOUDS								CIRRUS CUMULUS STRATUS NONE
BAROMETER 29 in.								H ON L ON
WIND								PREVAILING WIND
90° 80° 70° 60° 50° 40° 30° 20° 10° THERMOMETER 0°								90° HIGHEST 80° 70° 60° 50° 40° 30° 20° 10° 0° LOWEST RANGE
INDICATIONS								STORM CENTER PASSED US ON
WEATHER MAP HIGH								
LOW								
DIFFERENCE FROM NORMAL	H L							

and maps showing the changes in flood and draught are drawn. The Shewassee River rises in Lake Nokomis, whose source is the Sand Spring in the side of Hiawatha Mountain. The chain of the Ring Mountains surrounds Lake Nokomis. A few decimeters from the lake the Shewassee plunges over Minnehaha Falls into the pool below, and then begins its course of washing down its valley. At flood time the river fills its valley from hillside to hillside, but in the drier time, when Minnehaha Falls only sparkle their beaded streamlets, the Shewassee is a modest little stream cutting down its flood plain in a single narrow bed. Several islands have formed. The largest of these is Mackinac Island, due to the "Big Head," an enormous human head of stone (clay) that has collected enough gravel and bowlders beside it to divert the Yazoo branch that formerly flowed here all the year round. Now it overflows only at the spring freshets. Under the cliff lower down the Shewassee has washed out Fingal's Cave. The upper part of this formation is hard, with an understratum of soft, sandy earth which easily washes out, leaving caves for a while, until too much of the foundation is washed out, when the roof falls and the cave is no more. The delta formation shows all the characteristics of the Mississippi delta pushing out into the Gulf of Mexico. It has three main branches, in each of which the stream washes out its channel, except at high flood, when everything is covered with water at the delta and the soft alluvial deposit is rapidly carried away. There are several mud volcanoes over in the Bad Lands, northeast of the Shewassee, and from the top of Devil's Leap a perpendicular descent of two decimeters shows the flat wall of rock down which the Fiend jumped.

The soil and rock are prepared in strata and faults, outcrops and tiltings, so that the little Shewassee may find its life-history as similar as possible to that of its giant brothers of the earth. The great advantage over the sand model is that here the river makes its own bed, it is active and moving, changing and "going on forever." It has the fresh interest of a living animal. Its eddies are like thoughts that indicate a changing purpose; it seems pulsating with life, murmuring and babbling over its gravelly bed.

I have often thought I should like to see the ceiling of a schoolroom covered with a converse of a map centering about the home and giving distance and direction from the home town. There would be circles drawn at scale intervals to indicate distance to the eye, and the names of towns, lakes, mountains, etc., would be painted as on a map; but we should be looking at it from below, and thus should get its converse. It would be as if we were looking from the inside of a transparent globe at the surface features. It would help immensely in training the pupils to think of the real world under their feet, instead of referring every place to a map or model.

The architectural ornamentation of our houses is for the most part absolutely meaningless. Designs for wall paper or frescoes are fit only for geometric paranoiacs. Why not surround our children with symbolic meaning? Put mottoes and proverbs on the walls, with symbolic and typical scenes from the history of civilization. Below these should come a chronological chart of history by years, and with dramatic episodes and pregnant events pictured in striking yet simple form. Every pupil needs to carry such a mental chronology form in mind throughout life.

Would that a writer with the genius of Shakespeare would dramatize the episodes of American history! The children need to have the story acted out, but there must be a poet and artist to recast the story in dramatic form. It cannot be given in its bald actuality as in the text-book. What the play of *Julius Cæsar* is to the facts of Roman history in the first century B. C. is just what we need for the facts of our American history now. For the elementary school we need historical plays and dialogues and historical novels more than we do history text-books.

Of all the subjects in the curriculum arithmetic is the most poorly taught. There is scarcely a beginning yet made of anything like an organization of the number work to help build up actually definite images of the world. I doubt whether the reform can ever come without giving up the teaching of arithmetic as a subject for its own sake. In geography we need a great deal of number work, to build out the clear concepts of areas, relative size, population, etc. Everything contained in the Census Reports on manufactures, agriculture, commerce, vital statistics, and population is such needed material. Take the graphic presentation of census facts as given by the charts and maps prepared under Henry Gannett's direction as a sample of what such arithmetic work would cover.[2] Scale drawing, measuring, and plotting are among the most natural and proper exercises for children in arithmetic. It is our commercial age that has forced the money problems into the arithmetic. Most of our pupils have no interest in nor relation to the use of money as described in the current arithmetics. Consequently they do not understand the problems nor apply them. The ten volumes of the Census Report for 1900 are the freshest, fullest, and most usable and suggestive material I know of in industrial and commercial geography and arithmetic. To master any of these facts one needs the help of arithmetical processes. It is this help quite as much as any teaching of arithmetic that makes the reform needed.

Our cloak-room we have long ago turned into a work-room, with carpenter's bench, tool chest, nails, screws, etc., for the making of apparatus, charts, models, and other things daily. Here are made models of Columbus's fleet, weaving looms, bird-houses, checkerboards, oil derricks, models of bridges, canal locks, sun-dials, etc.

The periodicity of interest that children show in their games is in striking contrast to our logically framed curriculum, where each subject marches evenly through the year, until dropped in vacation. Do any children play marbles, trundle hoops, or fly kites all the year around? Would not any subject be better taken care of by having it for a season and then turning to something else? If the children were free to choose, I believe they would so arrange it. Just before St. Valentine's Day we have the utmost interest in drawing and painting with plenty of motive. In the fall the children are swinging and turning somersaults on the horizontal bar that is fastened to the door-frame of the workroom. They never look at it in the spring. Hallowe'en is the time for masquerades. So should we have fractions, or Columbus, or Massachusetts, or drawing, or diagramming right on and on while the interest is intense, and then drop it for a time to take up some other branch.

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[2] *Cf.* HENRY GANNETT, *The Building of a Nation.* New York: The Henry T. Thomas Co., 1895. Also the charts and maps in Census Reports.

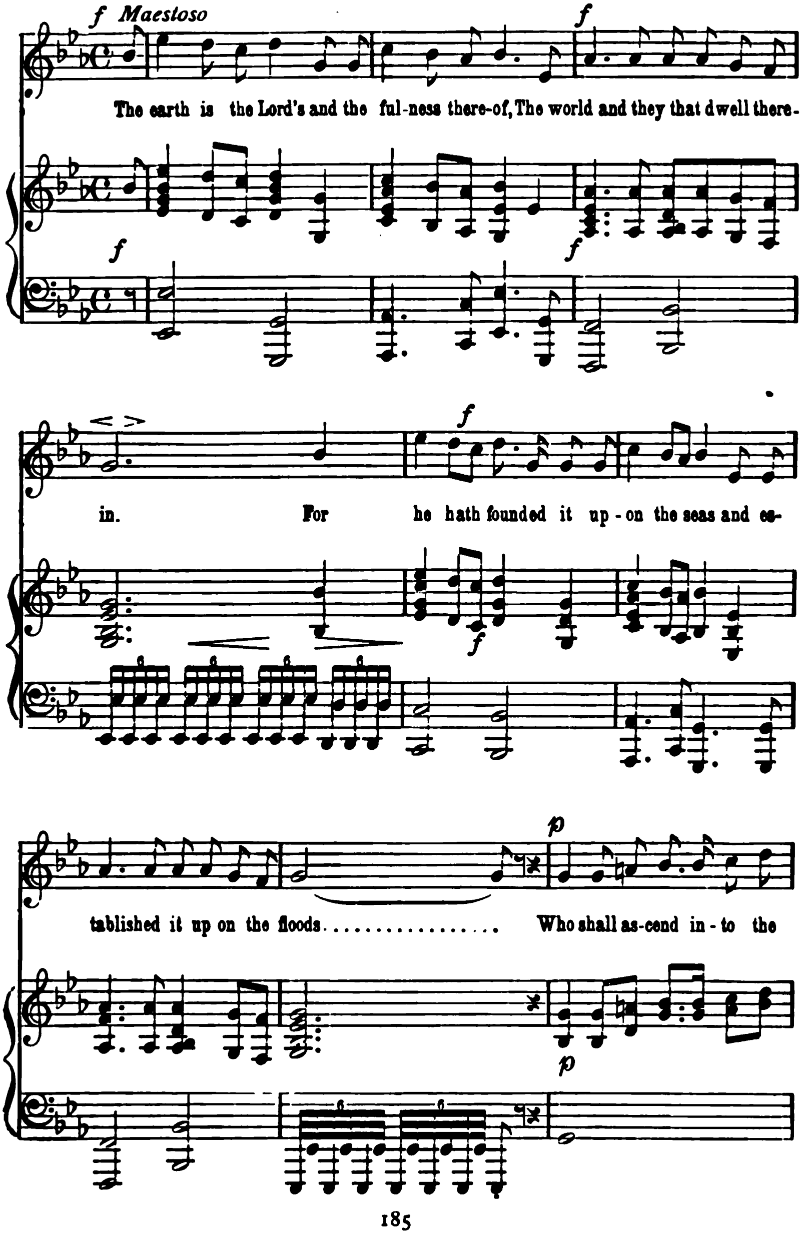
The children that need only suggestion and opportunity in order to do their work make rapid progress, are excused from considerable mechanical drill, and thus gain time for much more valuable work that the dullard never can get. Some learn in a single lesson how to divide words into syllables, and need but little drill afterward. Others must be drilled for months on the simplest things. To use these methods of the feebleminded on ordinary children stunts their growth. Hence it is necessary in every subject to draw off those who need continued drill and work with this smaller number intensively while the bright ones are doing far better at some other, more exacting work. For example, the best ones are started at the use of the dictionary first, and can later assist the duller ones over their difficulties. The brightest pupils do not need to be shown how to find a word, its meaning, its etymology, or its pronunciation; they understand indexes, appendixes, footnotes, tables of contents, etc., intuitively and need only suggestion. "When I have presented one corner of a subject," said Confucius, "and the pupil cannot make out the other three, I do not repeat the lesson." Such pupils go into the drill class for the duller routine of methodized teaching.

HERMAN T. LUKENS.

STATE NORMAL SCHOOL,
California, Pa.

THE EARTH IS THE LORD'S.

ELEANOR SMITH.


f Maestoso
The earth is the Lord's and the ful-ness there-of, The world and they that dwell there-
in. For he hath founded it up-on the seas and es-
tablished it up on the floods................. Who shall as-cend in-to the
f
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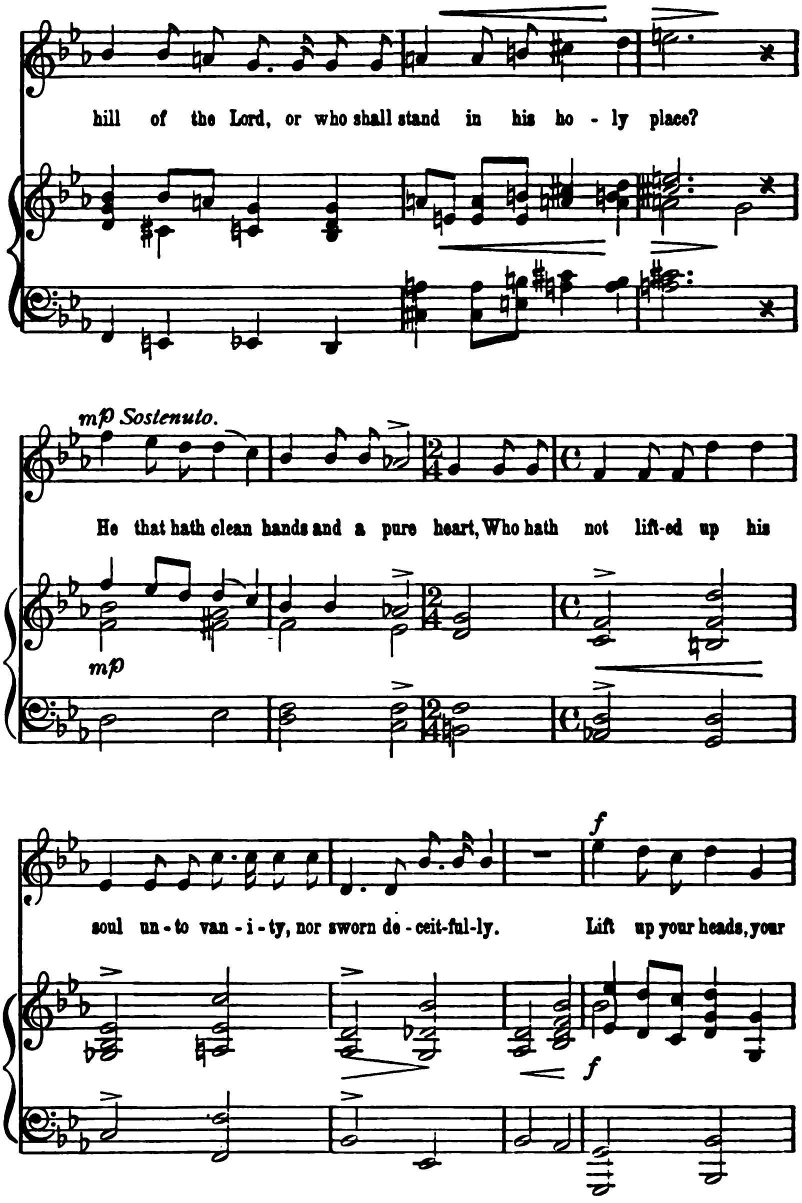
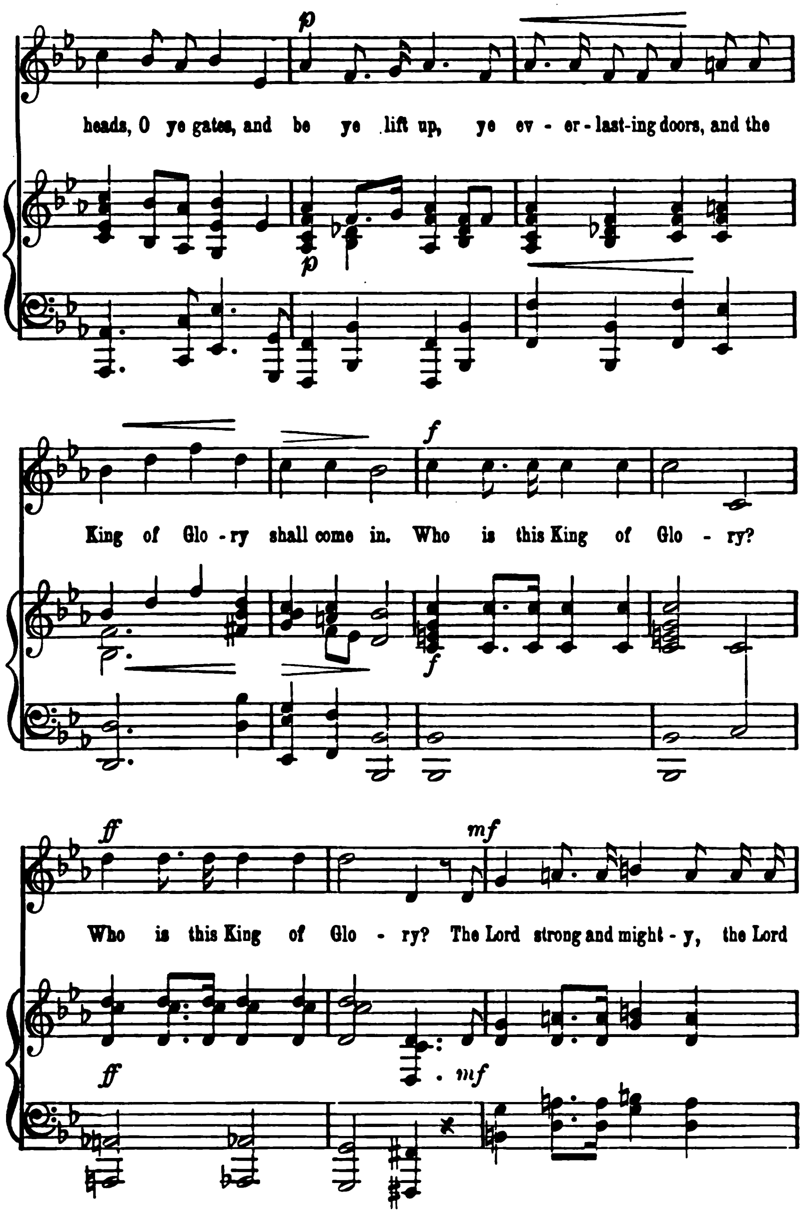

hill of the Lord, or who shall stand in his ho - ly place?
mp Sostenuto.
He that hath clean hands and a pure heart, Who hath not lift-ed up his
mp
soul un-to van-i-ty, nor sworn de-ceit-ful-ly. Lift up your heads, your
f
f


p
heads, O ye gates, and be ye lift up, ye ev - er - last-ing doors, and the
p
King of Glo - ry shall come in. Who is this King of Glo - ry?
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f
ff
Who is this King of Glo - ry? The Lord strong and might - y, the Lord
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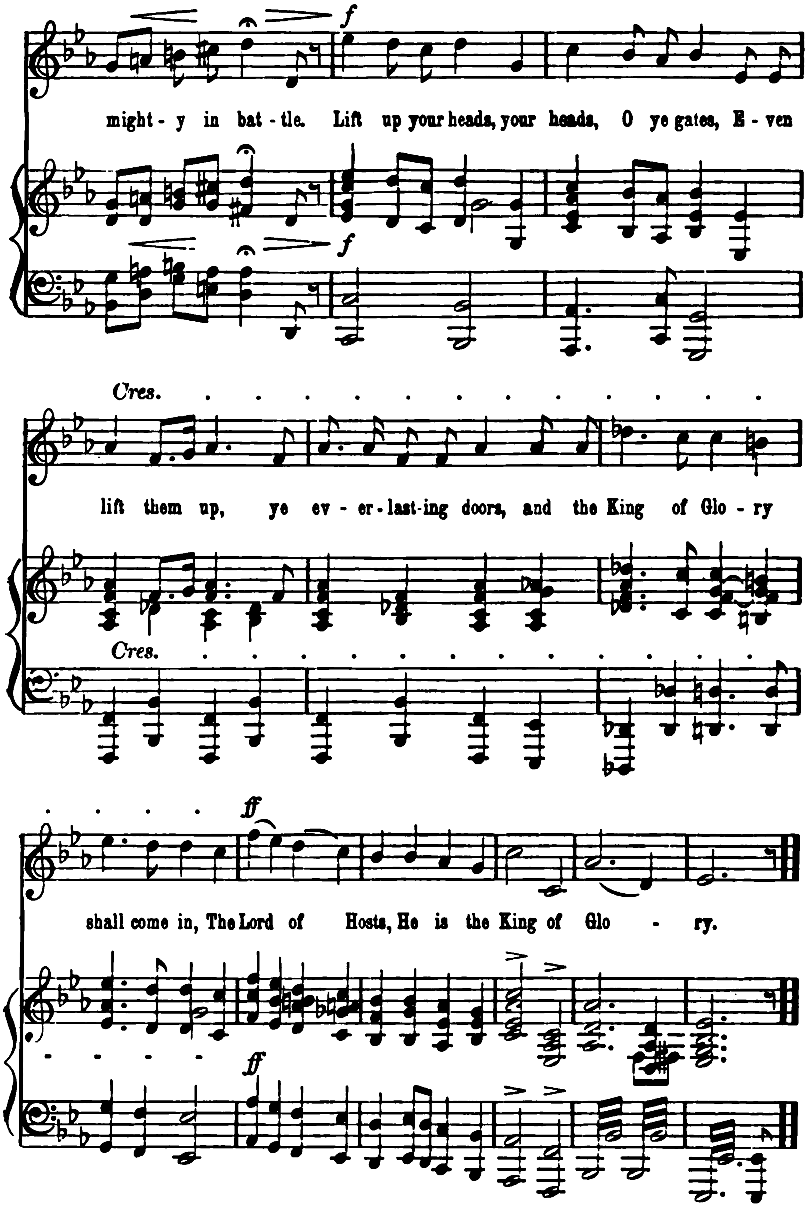
ff
mf


f
might - y in bat - tle. Lift up your heads, your heads, O ye gates, E - ven
f
Cres.
lift them up, ye ev - er - last-ing doors, and the King of Glo - ry
Cres.
ff
shall come in, The Lord of Hosts, He is the King of Glo - ry.
ff

SHALL THE EXAMINING AND LICENSING OF TEACHERS SET A MODEL IN PEDAGOGY?

He is best equipped for life who has formed a habit of most efficiently organizing his resources (the known) in the solution of life's problems. Therefore the great aim of our school system should be the formation, in the pupil, of the habit of using the known effectively in the acquisition of the unknown. To accomplish this fundamental aim, teachers should be licensed and employed who possess, in a strong degree, this power to organize the subject-matter. But only such boards of instruction as possess this organizing power are capable of preparing the questions and examining the manuscripts which will test this power in the applicant for a certificate.

An examination of sample questions prepared by state, city, and county boards of examiners reveals the fact that a very small percentage of the questions test this organizing power; nor are a large percentage of the examining boards specially fitted to discover this power if displayed by a teacher in his manuscript. Even though the questions were pedagogically framed and the examiners of manuscripts thoroughly equipped, time is wanting in the ordinary examination sufficiently to test the power of a teacher to organize the subject-matter of instruction. Then, the things requisite to this reform are a board possessing the ability to prepare the questions and examine the manuscripts ,and more time both for the examination and the grading of the manuscripts. The requisite of sufficient time is met in the summer normal institute found in most of the states. While the boards of instructors in these summer normals are not all that could be desired, they are, as a rule, much stronger than the board for the examination and licensing of teachers.

The proposed reform would consist of the preparation of thoroughly pedagogical questions by a state board, the strengthening of the board of instructors in summer normals, and the intrusting of the issuing of certificates in the common branches to these boards of instructors. The issuing of certificates in the higher branches should be intrusted to boards of instructors in a few district institutes located at educational centers throughout the state. These boards of instructors, both in the common and the higher branches, would have ample opportunity of supplementing their written examinations by occasional tests and oral recitations; also of estimating the personality of the applicant. In this way the teaching power of the applicant could be much more accurately measured than by the present written examination. One serious objection to the present method of licensing teachers is that it is difficult to convince the people that the inexperienced applicant in the possession of a certificate needs pedagogic training before entering the schoolroom as a regular teacher. This is not strange when the certificate certifies that the applicant is prepared to teach.

The following are examples of some questions that test the ability of the applicant to organize subject-matter for instruction: By a series of questions and answers, develop a beginning lesson on square measure, interest, stocks; on the reason for the location of the strategic points during the French and Indian wars; on the attempt to open up the Mississippi River during the Civil War; on the relation of the Omnibus Bill to the Missouri Compromise; on New Orleans as a cotton center; on the rainfall east of the Andes; on the commerce of the Great Lakes; on the industrial steps intervening between the raw cotton and the finished garment. Or again, the applicant may be required to outline a lesson, or make a written assignment of a lesson in such way as to stimulate the pupil to his best efforts; or to take any statement in geography, history, or other branch and show its concrete contents by tracing relations.

Shall we fully utilize the great schools of education?

I lay it down as fundamental that the great schools of education, such as the College of Education in connection with the Chicago University and Teachers College in connection with Columbia University should be fully utilized. To this end, it is necessary, not only that they be filled with students, but that they be filled with students who can carry back to their constituency the educational reforms inculcated, and become leaders in their respective communities. My plan is for counties, state senatorial districts, or congressional districts, or county, district, or state associations, to send representatives to these great schools of education. Representatives might be sent by county normal institutes, by a city, or by men of wealth. These representatives might be sent on condition that they donate a certain amount of instruction in the normal institute on their return. Where a representative could not be sent for the entire course, or for a year, he might be sent for the summer. The schools of education would probably be willing to meet this movement by the granting of a limited number of free scholarships on properly guarded conditions. The above thoughts have been suggested to me from observing the miscellaneous attendance during the summer upon some of these schools of education.

L. E. WOLFE.

SAN ANTONIO, TEX.

BOOKS RECEIVED.

Le Petit Robinson de Paris Foa. By Louise de Bonneville. Chicago: American Book Co., 1903. Pp. 155, 12mo; cloth. $0.45, *net.*

Human Physiology. By John I. Jegi. New York: The Macmillan Co., 1903. Pp. 5, 264, 12mo, illustrated; cloth. $1, *net.*

Our Language-Grammar. By C. Alphonso Smith. B. F. Johnson Publishing Co.

The Mental Traits of Sex. By Helen Bradford Thompson. Chicago: University of Chicago Press, 1903. Pp. 8, 188, 8vo; cloth. $1.25, *net.*

Animal Education. By John B. Watson. Chicago: University of Chicago Press. 1903. Pp. 122, 8vo; cloth. $1.25, *net.*

Studies in Logical Theory. By John Dewey. Chicago: University of Chicago Press, 1903. Pp. 14, 300, 8vo; cloth. $2.50, *net.*

Principles and Ideals for the Sunday School. By Ernest DeWitt Burton and Shailer Mathews. Chicago: University of Chicago Press, 1903. Pp. 208, 8vo; cloth. $1, *net.*

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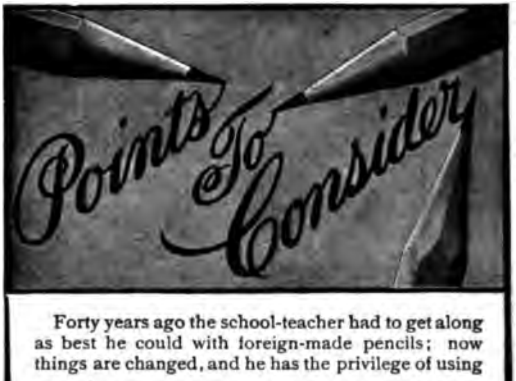

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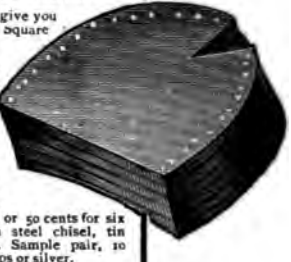

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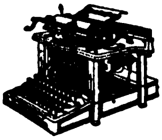

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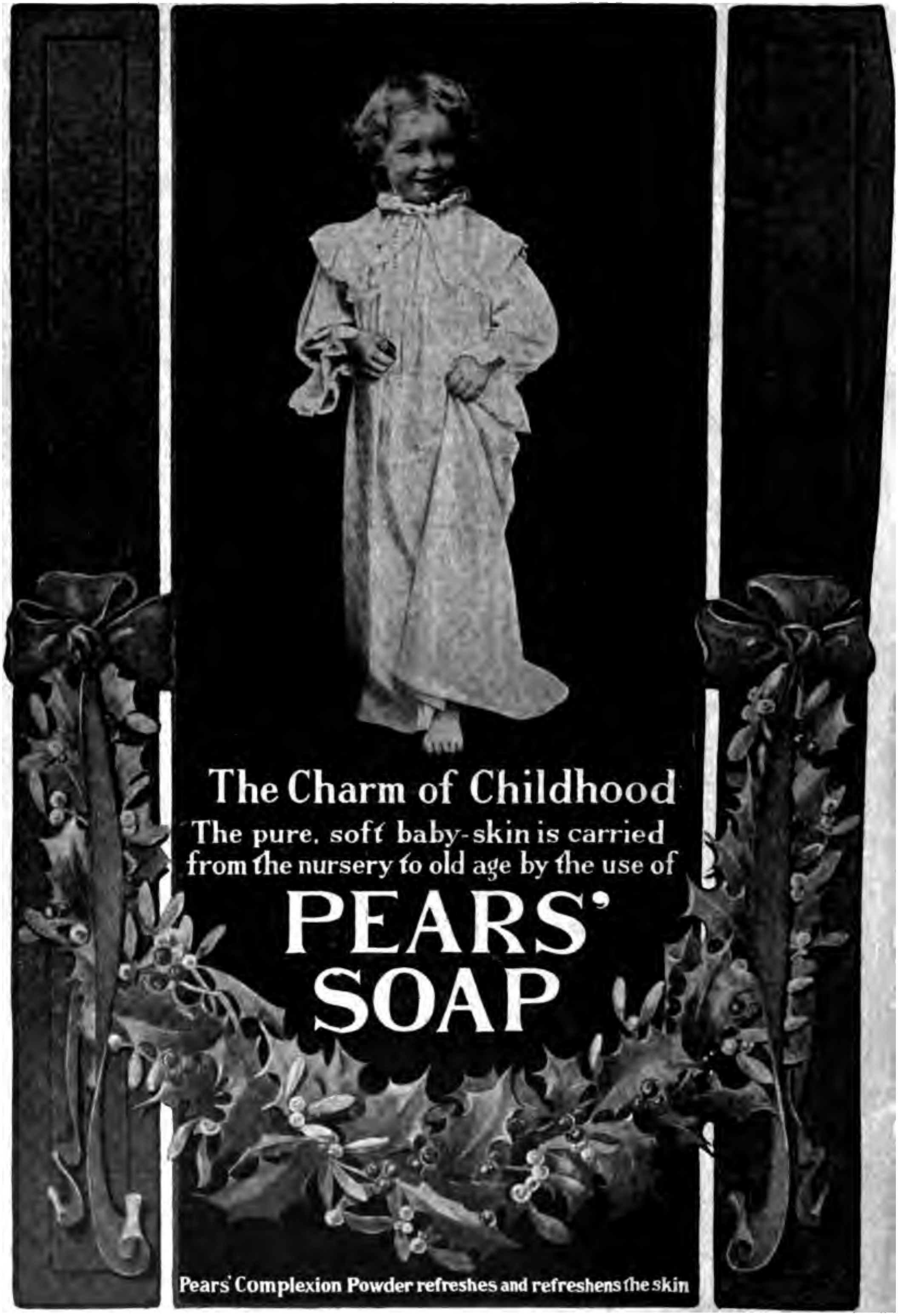
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CONTENTS FOR DECEMBER, 1903

DEMOCRACY IN EDUCATION - - - - - - - - - - - JOHN DEWEY 193

SOCIAL NEEDS OF CHILDREN - - - - - HATTIE HOVER HARDING 205

NOTES ON SCHOOL MANAGEMENT - - - FRANK A. MANNY 210

PROGRESS IN THE SCHOOLS OF A LARGE CITY - - FANNIE L. LACHMUND 212

THE PROBLEM OF SCHOOL MANAGEMENT - - - - - - O. J. MILLIKEN 218

SOME PROBLEMS IN THE MANAGEMENT OF THE KINDERGARTEN BERTHA PAYNE 220

INEFFICIENT TEACHERS - - - - - - - - - - - - E. A. GASTMAN 229

PROBLEMS OF THE INSTITUTE - - - - - - - - - JOHN T. MCMANIS 232

THE DEVELOPMENT OF A VOCABULARY - - - - EMMA JOSEPHINE BRECK 240

RE-EXAMINATION OF TEACHERS - - - - - - - ELLA FLAGG YOUNG 247

BOOK REVIEWS:

Sinclair: The Possibility of a Science of Education, KATHARINE E. DOPP, 150; *Brigham:* Geographic Influences in American History, WERRETT WALLACE CHARTERS, 252; *Judd:* Genetic Psychology for Teachers, W. C. GORE, 254.

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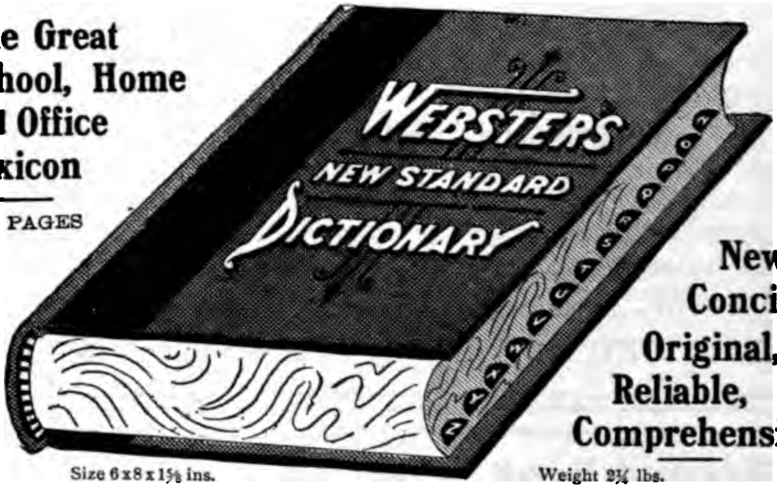

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THE ELEMENTARY SCHOOL TEACHER

VOLUME IV NUMBER 4

THE ELEMENTARY SCHOOL TEACHER

DECEMBER, 1903

DEMOCRACY IN EDUCATION.

MODERN life means democracy, democracy means freeing intelligence for independent effectiveness — the emancipation of mind as an individual organ to do its own work. We naturally associate democracy, to be sure, with freedom of action, but freedom of action without freed capacity of thought behind it is only chaos. If external authority in action is given up, it must be because internal authority of truth, discovered and known to reason, is substituted.

How does the school stand with reference to this matter? Does the school as an accredited representative exhibit this trait of democracy as a spiritual force? Does it lead and direct the movement? Does it lag behind and work at cross-purpose? I find the fundamental need of the school today dependent upon its limited recognition of the principle of freedom of intelligence. This limitation appears to me to affect both of the elements of school life: teacher and pupil. As to both, the school has lagged behind the general contemporary social movement; and much that is unsatisfactory, much of conflict and of defect, comes from the discrepancy between the relatively undemocratic organization of the school, as it affects the mind of both teacher and pupil, and the growth and extension of the democratic principle in life beyond school doors.

The effort of the last two-thirds of a century has been successful in building up the machinery of a democracy of mind. It has provided the ways and means for housing and equipping intelligence. What remains is that the thought-activity of the individual, whether teacher or student, be permitted and encouraged to take working possession of this machinery: to substitute its rightful lordship for an inherited servility. In truth, our public-school system is but two-thirds of a century old. It dates, so far as such matters can be dated at all, from 1837, the year that Horace Mann became secretary of the state board of Massachusetts; and from 1843, when Henry Barnard began a similar work in Connecticut. At this time began that growing and finally successful warfare against all the influences, social and sectarian, which would prevent or mitigate the sway of public influence over private ecclesiastical and class interests. Between 1837 and 1850 grew up all the most characteristic features of the American public-school system: from this time date state normal schools, city training schools, county and state institutes, teachers' associations, teachers' journals, the institution of city superintendencies, supervisory officers, and the development of state universities as the crown of the public-school system of the commonwealth. From this time date the striving for better schoolhouses and grounds, improved text-books, adequate material equipment in maps, globes, scientific apparatus, etc. As an outcome of the forces thus set in motion, democracy has in principle, subject to relative local restrictions, developed an organized machinery of public education. But when we turn to the aim and method which this magnificent institution serves, we find that our democracy is not yet conscious of the ethical principle upon which it rests — the responsibility and freedom of mind in discovery and proof — and consequently we find confusion where there should be order, darkness where there should be light. The teacher has not the power of initiation and constructive endeavor which is necessary to the fulfilment of the function of teaching. The learner finds conditions antagonistic (or at least lacking) to the development of individual mental power and to adequate responsibility for its use.

1. *As to the teacher.*— If there is a single public-school system in the United States where there is official and constitutional provision made for submitting questions of methods of discipline

and teaching, and the questions of the curriculum, text-books, etc., to the discussion and decision of those actually engaged in the work of teaching, that fact has escaped my notice. Indeed, the opposite situation is so common that it seems, as a rule, to be absolutely taken for granted as the normal and final condition of affairs. The number of persons to whom any other course has occurred as desirable, or even possible — to say nothing of necessary — is apparently very limited. But until the public-school system is organized in such a way that every teacher has some regular and representative way in which he or she can register judgment upon matters of educational importance, with the assurance that this judgment will somehow affect the school system, the assertion that the present system is not, from the internal standpoint, democratic seems to be justified. Either we come here upon some fixed and inherent limitation of the democratic principle, or else we find in this fact an obvious discrepancy between the conduct of the school and the conduct of social life — a discrepancy so great as to demand immediate and persistent effort at reform.

The more enlightened portions of the public have, indeed, become aware of one aspect of this discrepancy. Many reformers are contending against the conditions which place the direction of school affairs, including the selection of text-books, etc., in the hands of a body of men who are outside the school system itself, who have not necessarily any expert knowledge of education and who are moved by non-educational motives. Unfortunately, those who have noted this undemocratic condition of affairs, and who have striven to change it, have, as a rule, conceived of but one remedy, namely, the transfer of authority to the school superintendent. In their zeal to place the center of gravity inside the school system, in their zeal to decrease the prerogatives of a non-expert school board, and to lessen the opportunities for corruption and private pull which go with that, they have tried to remedy one of the evils of democracy by adopting the principle of autocracy. For no matter how wise, expert, or benevolent the head of the school system, the one-man principle is autocracy.

The logic of the argument goes farther, very much farther, than the reformer of this type sees. The logic which commits him to the idea that the management of the school system must be in the hands of an expert commits him also to the idea that every member of the school system, from the first-grade teacher to the principal of the high school, must have some share in the exercise of educational power. The remedy is not to have one expert dictating educational methods and subject-matter to a body of passive, recipient teachers, but the adoption of intellectual initiative, discussion, and decision throughout the entire school corps. The remedy of the partial evils of democracy, the implication of the school system in municipal politics, is in appeal to a more thoroughgoing democracy.

The dictation, in theory at least, of the subject-matter to be taught, to the teacher who is to engage in the actual work of instruction, and frequently, under the name of close supervision, the attempt to determine the methods which are to be used in teaching, mean nothing more or less than the deliberate restriction of intelligence, the imprisoning of the spirit. Every well graded system of schools in this country rejoices in a course of study. It is no uncommon thing to find methods of teaching such subjects as reading, writing, spelling, and arithmetic officially laid down; outline topics in history and geography are provided ready-made for the teacher; gems of literature are fitted to the successive ages of boys and girls. Even the domain of art, songs and methods of singing, subject-matter and technique of drawing and painting, come within the region on which an outside authority lays its sacrilegious hands.

I have stated the theory, which is also true of the practice to a certain extent and in certain places. We may thank our heavens, however, that the practice is rarely as bad as the theory would require. Superintendents and principals often encourage individuality and thoughtfulness in the invention and adoption of methods of teaching; and they wink at departures from the printed manual of study. It remains true, however, that this great advance is personal and informal. It depends upon the wisdom and tact of the individual supervisory official; he may withdraw his concession at any moment; or it may be ruthlessly thrown aside by his successor who has formed a high ideal of "system."

I know it will be said that this state of things, while an evil, is a necessary one; that without it confusion and chaos would reign; that such regulations are the inevitable accompaniments of any graded system. It is said that the average teacher is incompetent to take any part in laying out the course of study or in initiating methods of instruction or discipline. Is not this the type of argument which has been used from time immemorial, and in every department of life, against the advance of democracy? What does democracy mean save that the individual is to have a share in determining the conditions and the aims of his own work; and that, upon the whole, through the free and mutual harmonizing of different individuals, the work of the world is better done than when planned, arranged, and directed by a few, no matter how wise or of how good intent that few? How can we justify our belief in the democratic principle elsewhere, and then go back entirely upon it when we come to education?

Moreover, the argument proves too much. The more it is asserted that the existing corps of teachers is unfit to have voice in the settlement of important educational matters, and their unfitness to exercise intellectual initiative and to assume the responsibility for constructive work is emphasized, the more their unfitness to attempt the much more difficult and delicate task of guiding souls appears. If this body is so unfit, how can it be trusted to carry out the recommendations or the dictations of the wisest body of experts? If teachers are incapable of the intellectual responsibility which goes with the determination of the methods they are to use in teaching, how can they employ methods when dictated by others, in other than a mechanical, capricious, and clumsy manner? The argument, I say, proves too much.

Moreover, if the teaching force is as inept and unintelligent and irresponsible as the argument assumes, surely the primary problem is that of their improvement. Only by sharing in some responsible task does there come a fitness to share in it. The argument that we must wait until men and women are fully ready to assume intellectual and social responsibilities would have defeated every step in the democratic direction that has ever been taken. The prevalence of methods of authority and of external dictation and direction tends automatically to perpetuate the very conditions of inefficiency, lack of interest, inability to assume positions of self-determination, which constitute the reasons that are depended upon to justify the régime of authority.

The system which makes no great demands upon originality, upon invention, upon the continuous expression of individuality, works automatically to put and to keep the more incompetent teachers in the school. It puts them there because, by a natural law of spiritual gravitation, the best minds are drawn to the places where they can work most effectively. The best minds are not especially like to be drawn where there is danger that they may have to submit to conditions which no self-respecting intelligence likes to put up with; and where their time and energy are likely to be so occupied with details of external conformity that they have no opportunity for free and full play of their own vigor.

I have dwelt at length upon the problem of the recognition of the intellectual and spiritual individuality of the teacher. I have but one excuse. All other reforms are conditioned upon reform in the quality and character of those who engage in the teaching profession. The doctrine of the man behind the gun has become familiar enough, in recent discussion, in every sphere of life. Just because education is the most personal, the most intimate, of all human affairs, there, more than anywhere else, the sole ultimate reliance and final source of power are in the training, character, and intelligence of the individual. If any scheme could be devised which would draw to the calling of teaching persons of force of character, of sympathy with children, and consequent interest in the problems of teaching and of scholarship, no one need be troubled for a moment about other educational reforms, or the solution of other educational problems. But as long as a school organization which is undemocratic in principle tends to repel from all but the higher portions of the school system those of independent force, of intellectual initiative, and of inventive ability, or tends to hamper them in their work after they find their way into the schoolroom, so long all other. reforms are compromised at their source and postponed indefinitely for fruition.

2. *As to the learner.*—The undemocratic suppression of the individuality of the teacher goes naturally with the improper restriction of the intelligence of the mind of the child. The mind, to be sure, is that of a child, and yet, after all, it is mind. To subject mind to an outside and ready-made material is a denial of the ideal of democracy, which roots itself ultimately in the principle of moral, self-directing individuality. Misunderstanding regarding the nature of the freedom that is demanded for the child is so common that it may be necessary to emphasize the fact that it is primarily intellectual freedom, free play of mental attitude, and operation which are sought. If individuality were simply a matter of feelings, impulses, and outward acts independent of intelligence, it would be more than a dubious matter to urge a greater degree of freedom for the child in the school. In that case much, and almost exclusive, force would attach to the objections that the principle of individuality is realized in the more exaggerated parts of Rousseau's doctrines: sentimental idealization of the child's immaturity, irrational denial of superior worth in the knowledge and mature experience of the adult, deliberate denial of the worth of the ends and instruments embodied in social organization. Deification of childish whim, unripened fancy, and arbitrary emotion is certainly a piece of pure romanticism. The would-be reformers who emphasize out of due proportion and perspective these aspects of the principle of individualism betray their own cause. But the heart of the matter lies not there. Reform of education in the direction of greater play for the individuality of the child means the securing of conditions which will give outlet, and hence direction, to a growing intelligence. It is true that this freed power of mind with reference to its own further growth cannot be obtained without a certain leeway, a certain flexibility, in the expression of even immature feelings and fancies. But

it is equally true that it is not a riotous loosening of these traits which is needed, but just that kind and degree of freedom from repression which are found to be necessary to secure the full operation of intelligence.

Now, no one need doubt as to what mental activity or the freed expression of intelligence means. No one need doubt as to the conditions which are conducive to it. We do not have to fall back upon what some regard as the uncertain, distracting, and even distressing voice of psychology. Scientific methods, the methods pursued by the scientific inquirer, give us an exact and concrete exhibition of the path which intelligence takes when working most efficiently, under most favorable conditions.

What is primarily required for that direct inquiry which constitutes the essence of science is first-hand experience; an active and vital participation through the medium of all the bodily organs with the means and materials of building up first-hand experience. Contrast this first and most fundamental of all the demands for an effective use of mind with what we find in so many of our elementary and high schools. There first-hand experience is at a discount; in its stead are summaries and formulas of the results of other people. Only very recently has any positive provision been made within the schoolroom for any of the modes of activity and for any of the equipment and arrangement which permit and require the extension of original experiences on the part of the child. The school has literally been dressed out with hand-me-down garments—with intellectual suits which other people have worn.

Secondly, in that freed activity of mind which we term "science" there is always a certain problem which focusses effort, which controls the collecting of facts that bear upon the question, the use of observation to get further data, the employing of memory to supply relevant facts, the calling into play of imagination, to yield fertile suggestion and construct possible solutions of the difficulty.

Turning to the school, we find too largely no counterpart to this mental activity. Just because a second-handed material has been supplied wholesale and retail, but anyway ready-made, the tendency is to reduce the activity of mind to a docile or passive taking in of the material presented — in short, to memorizing, with simply incidental use of judgment and of active research. As is frequently stated, acquiring takes the place of inquiring. It is hardly an exaggeration to say that the sort of mind-activity which is encouraged in the school is a survival from the days in which science had not made much headway; when education was mainly concerned with learning, that is to say, the preservation and handing down of the acquisitions of the past. It is true that more and more appeal is made every day in schools to judgment, reasoning, personal efficiency, and the calling up of personal, as distinct from merely book, experiences. But we have not yet got to the point of reversing the total method. The burden and the stress still fall upon learning in the sense of becoming possessed of the second-hand and ready-made material referred to. As Mrs. Young has recently said, the prevailing ideal is a perfect recitation, an exhibition without mistake, of a lesson learned. Until the emphasis changes to the conditions which make it necessary for the child to take an active share in the personal building up of his own problems and to participate in methods of solving them (even at the expense of experimentation and error), mind is not really freed.

In our schools we have freed individuality in many modes of outer expression without freeing intelligence, which is the vital spring and guarantee of all of these expressions. Consequently we give opportunity to the unconverted to point the finger of scorn, and to clamor for a return to the good old days when the teacher, the representative of social and moral authority, was securely seated in the high places of the school. But the remedy here, as in other phases of our social democracy, is not to turn back, but to go farther — to carry the evolution of the school to a point where it becomes a place for getting and testing experience, as real and adequate to the child upon his existing level as all the resources of laboratory and library afford to the scientific man upon his level. What is needed is not any radical revolution, but rather an organization of agencies already found in the schools. It is hardly too much to say that not a single subject or instrumentality is required which is not already found in many schools of the country. All that is required is to gather these materials and forces together and unify their operation. Too often they are used for a multitude of diverse and often conflicting aims. If a single purpose is provided, that of freeing the processes of mental growth, these agencies will at once fall into their proper classes and reinforce each other.

A catalogue of the agencies already available would include at least all of the following: Taking the child out of doors, widening and organizing his experience with reference to the world in which he lives; nature study when pursued as a vital observation of forces working under their natural conditions, plants and animals growing in their own homes, instead of mere discussion of dead specimens. We have also school gardens, the introduction of elementary agriculture, and more especially of horticulture—a movement that is already making great headway in many of the western states. We have also means for the sake of studying physiographic conditions, such as may be found by rivers, ponds or lakes, beaches, quarries, gulleys, hills, etc.

As similar agencies within the school walls, we find a very great variety of instruments for constructive work, or, as it is frequently, but somewhat unfortunately termed, "manual training." Under this head come cooking, which can be begun in its simpler form in the kindergarten; sewing, and what is of even greater educational value, weaving, including designing and the construction of simple apparatus for carrying on various processes of spinning, etc. Then there are also the various forms of tool-work directed upon cardboard, wood, and iron; in addition there are clay-modeling and a variety of ways of manipulating plastic material to gain power and larger experience.

Such matters pass readily over into the simpler forms of scientific experimentation. Every schoolroom from the lowest primary grade up should be supplied with gas, water, certain chemical substances and reagents. To experiment in the sense of trying things or to see what will happen is the most natural business of the child; it is, indeed, his chief concern. It is one which the school has largely either ignored or actually suppressed, so that it has been forced to find outlet in mischief or even in actually destructive ways. This tendency could find outlet in the construction of simple apparatus and the making of simple tests, leading constantly into more and more controlled experimentation, with greater insistense upon definiteness of intellectual result and control of logical process.

Add to these three typical modes of active experimenting, various forms of art expression, beginning with music, clay-modeling, and story-telling as foundation elements, and passing on to drawing, painting, designing in various mediums, we have a range of forces and materials which connect at every point with the child's natural needs and powers, and which supply the requisites for building up his experience upon all sides. As fast as these various agencies find their way into the schools, the center of gravity shifts, the régime changes from one of subjection of mind to an external and ready-made material, into the activity of mind directed upon the control of the subject-matter and thereby its own upbuilding.

Politically we have found that this country could not endure half free and half slave. We shall find equally great difficulty in encouraging freedom, independence, and initiative in every sphere of social life, while perpetuating in the school dependence upon external authority. The forces of social life are already encroaching upon the school institutions which we have inherited from the past, so that many of its main stays are crumbling. Unless the outcome is to be chaotic, we must take hold of the organic, positive principle involved in democracy, and put that in entire possession of the spirit and work of the school.

In education meet the three most powerful motives of human activity. Here are found sympathy and affection, the going out of the emotions to the most appealing and the most rewarding object of love — a little child. Here is found also the flowering of the social and institutional motive, interest in the welfare of society and in its progress and reform by the surest and shortest means. Here, too, is found the intellectual and scientific motive, the interest in knowledge, in scholarship, in truth for its own sake, unhampered and unmixed with any alien ideal. Copartnership of these three motives — of affection, of social growth, and of scientific inquiry — must prove as nearly irresistible as anything human when they are once united. And, above all else, recognition of the spiritual basis of democracy, the efficacy and responsibility of freed intelligence, is necessary to secure this union.

JOHN DEWEY.

THE UNIVERSITY OF CHICAGO.

SOCIAL NEEDS OF CHILDREN.

What is meant by a child's social needs? It is his need to learn to co-operate with others, in work and in play, in a manner best fitted for his and his associates' highest development. In these days of social unrest and failure to recognize one's obligation to his neighbor, we all agree that there can be no part of a child's education that is more important. These social needs should be recognized in the school and in the home, and, it would be logical and natural to add, in the church. But for the purposes of this paper the school and the home centers only will be considered. Social organization takes place naturally when there is something to do. In the words of one of the leading educators, "when occupations are made the articulating centers" of home life and of school life, the social nature of the child grows and expands. Some educators are telling us how this can be accomplished in schools. The school is not a place for the acquisition of knowledge only. It is where the social instinct is recognized, while all of the powers of the body, mind, and soul are unfolding and developing, under wise guidance. In order to fully accomplish this, the life of the school and home must supplement each other. Were the schools social centers, our parents and teachers would meet on common ground for the furtherance of a better social spirit among all sorts and conditions of children.

How this can be accomplished in the home is only now beginning to occupy the attention of educators and parents alike. Professor Henderson, in *Education and the Larger Life,* after finding that the public schools are in session for less than one-half of the year and for less than one-fourth of the day, urges the importance of instructing the home on the question of its larger social duties. He says:

> It may be that the social purpose is divided between the school and the home, giving seven-eighths of the total year to the home. If this large share belong properly to the home, it would seem that by far the more important part of education consists in instructing the home, and that a true normal

> school ought to devote seven-eighths of its time to the enlightenment of fathers and mothers, and one-eighth to the narrower pedagogy of the school. But this is not done, and, as we all know, even in the schools themselves, the question of parenthood and its tremendous social duties is hardly touched upon at all. That is to say, we leave this immense slice of the educational process quite unprovided for. Now, this social failure of the home [and we might well add, of the school] is so manifest, and the recognition of it so widespread, that on all sides one sees the beginning of a movement to provide rational occupation for children, during at least, a part of their large holiday time. One hears of Saturday morning classes in woodwork, or sewing, or cooking, or gymnastics, outings in the country, summer camps for boys, and vacation schools.

The recognition of these social needs means the recognition of proper activities. In the olden time, when the household was the center about which all forms of industrial occupations clustered, there was plenty to occupy the time of the children of the family. Now that the industrial occupations have largely passed out of the home, there is great need to recognize the lack of proper home interests for children. Our great material prosperity has destroyed the simplicity of our lives. The complex organization of the present household overlooks the help that the boys and girls in the family might furnish. Such work, when the home and the school are properly correlated, can be made educative and developing. While, in a sense, the work is not as vital as in the old days when the household and neighborhood systems prevailed, still a household can be conducted upon scientific and ethical principles, so that the children can receive a valuable training and education, physically, intellectually, and morally. This, however, means that we must simplify our own and our children's lives. It means that the children must co-operate actively in the work and the life of the home, and that the parents must participate rather than direct. The strenuous demands of the outside world upon the members of the family often lose to it that tranquillity which must exist for the fructifying of its highest social life. Owing to the tendency of our civilization to specialize, many most vital things have passed out of the home. And these must be restored; otherwise the home is in danger.

Children need other interests; they need play, social intercourse with their mates. This interest should be understood and directed by the combined judgment of the teacher and parent. In some neighborhoods this is well met by the schools, with their public playgrounds, under the supervision of specialists. In other neighborhoods this want is supplied by the home. The children gather in a vacant lot or back yard, and we see games of tennis, football, baseball, basket-ball, cave-building, athletic sports, skating, and tobogganing. In the winter, appropriate social gatherings, which preserve the spirit of simplicity and naturalness, occur at the homes. But when this life has been most harmonious and most conducive to a proper social spirit, I have observed that some guiding hand has been at the helm, some mother with better insight into her children's wants has directed the social life, although so skilfully that the children have not even suspected it.

But there should be a true balance of these interests; neither play nor work should predominate. The interests about the home and the school should be properly proportioned. Social life is hampered by the lack of correlation between the different centers about which interests should cluster. It is complicated by the dissipation in many directions of these interests, which should concentrate about definite centers.

Educators and parents should come together and study these questions. An effort was made in this direction in connection with the Parents' Association of the Laboratory School of the University of Chicago. About ten years ago, when the school was first established, some of the parents met for the purpose of considering the best way of maintaining the school and to come to a better understanding of its principles. An association, which became an important factor in the history of the school, grew out of these meetings. While Dr. Dewey co-operated in every way and was indirectly its inspiration, he left it to grow entirely through its own efforts.

At first the work was done through the general meetings. These were attended by the mothers. Later these meetings were held in the evening, so that the fathers might join. The teachers explained their work, and different professors at the University discussed educational questions. The parents were encouraged to take part in the discussions. Some of these meetings were entirely social in their character. As the community feeling about the school grew, it became plain that the usefulness of the association could be increased by committee work.

There was a desire on the part of many parents to study more thoroughly educational questions and the work of leading educators. So the educational committee arranged for courses of lectures. Dr. Dewey, Mrs. Young, and Professor Tufts gave these at the University for the benefit of all who were interested in the school. This committee co-operated with the teachers in securing the best expression of Dr. Dewey's thought in the actual conduct of the school.

The social committee met and discussed the social needs of the boys and girls, at the same time striving to bring all of the mothers together socially. Among other things, we agreed that no sex line should be recognized; that the girls should be simply dressed; that there should be no idle roaming about the streets or idle visiting; that the social gatherings, which we entirely approved of should be most simple. For the younger children we encouraged sleigh rides, picnics, or afternoon parties. For the older ones we stood for early hours and plain dressing. And always we discouraged too frequent festivities of this sort. We arranged with a young University man who had the true spirit of play to encourage plenty of activity of the right sort, among the boys, during noon time and for a time after school. We arranged with the young woman director of the gymnasium to initiate the girls into games out of school. The teachers met with us Then each member of the committee acted as chairman of a subcommittee and called that committee together, spreading the principles for which the main committee stood. These committees met informally at the homes of the members. In this way the parents became acquainted. We came to know the needs of our friends' children, and they of ours, and I think we were of mutual assistance. In this way the school was brought into the closest touch with all the families represented in it, and furnished a unique instance of the whole neighborhood being a part of it, so that this community was associated with the methods, aims, and ambitions of the school in a way that made it an uplifting force, not only to its pupils, but to a large constituency. This committee hoped to arrange for discussions upon such subjects as "Proper Recreation for Children," "Social Needs During Adolescence," "Need of Public Playgrounds," "Value of Neighborhood Director of Games," "Athletics," "Fraternities," "Out-of-Door Life in Cities."

The purpose of the house committee was not so definitely recognized. It began to be clear, however, that this committee might be of great value. It could co-operate with the school in correlating the work of the home and of the school. During the school period, and especially in the case of the older boys and girls, the school encroaches very much upon the home. During the long vacation time it is difficult for the home to arrange properly for the children. The manual training, cooking, and sewing taught in the school are more often never practiced in the home. The organization of the household and the demands of the school upon the strength and time of the children prevent this. Appropriate subjects for lectures and discussion would be: "Scientific Organization of the Household," "How Can Home Life and School Life Be Correlated?" "Children's Home Duties," "Domestic Science."

We were strenuous in our efforts to infuse into the little community which grew about this school simplicity in thought and in action, and I think we were rewarded by seeing our boys and girls reach the ages of sixteen and seventeen natural and wholesome. But we did not have our own children only in mind. We hoped that the learning of a university, that rare pedagogical insight, combined with the earnest watchfulness and experience of the teachers and parents, might throw light upon what the social life of children of all communities, and especially of less favored communities, should be. We hoped that all children might be helped to the rich inheritance of what should be theirs, by the perfect growth of all their powers.

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NOTES ON SCHOOL MANAGEMENT.

"SCHOOL MANAGEMENT" is in the minds of those most concerned a somewhat uncertain term. The course often given in normal schools and colleges under that name varies greatly in content. It is next to the course in "methods" in degree of variability. In many cases it is very specific, and when there is an attempt at general statement the result is none too successful. In our texts on the subject there is a range from books of rules to idealistic visions of harmonies. One of our great committees wrestled with the subject, somewhat as an aside, but from every standpoint there is an opportunity for good work still to be done in this field.

One of the difficulties has been that we are not clear as yet as to the foundations of the internal government of schools. Are they to be democratic or monarchical in organization? The principles worked out in general government, and having reference there to immediate participation by adult males only, rightly or wrongly, are considered by many inapplicable to an institution so largely, as far as daily routine is concerned, now in the hands of young women. Then, too, the massing of numbers of pupils makes the government forms of the home out of place in the school, and raises the question as to the extent to which these children and young people can function in the organization which exists to aid them in their growth.

The reports written by some of the city superintendents, and such works as Mrs. Young's *Isolation in the School,* are the most promising material that we have. Our need is more discussions which take a large view of the school as a growing organism working out its own statement of function. We have much petty self-consciousness so far, but little of the large consciousness which makes for progress in an economical manner.

The self-government movement, while often a fad, indicates an appreciation of collective interests which will contribute much of permanent value. The recognition which we find of "school housekeeping," as a part of the published school curriculum even for older students, will also help. The best teachers have always recognized the need of placing responsibility where it rightly belongs, but we are coming now to a larger recognition of what this means.

The higher training of teachers will before long make a number of strides forward. At present it is still hard to learn how to use school tools without at the same time becoming mechanical. The training systems make it hard to foster individual excellence. The result is two classes of teachers, a large number of one class forgetting the weightier matters in their devotion to the really valuable things that they have learned, while the greater number of the other class are hampered in realizing the vision they follow because no man has helped them to overcome the little difficulties which will not be ignored. Smaller training centers, in closer relation to actual conditions, with more efficient supervision there and later, promise to help us.

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PROGRESS IN THE SCHOOLS OF A LARGE CITY.

An era of improvement in the school system of St. Louis began with a new school law. In accordance with this, members of the board of education, instead of being chosen to represent each his own ward, are elected on a ticket at large. The board is composed of twelve members, chosen for a term of six years, two retiring each year. It is nonpartisan, and the school administration is absolutely free from entanglements with city politics; the only point of contact between school and municipal governmental machinery being in the tax collector's office, where the school tax, as a fund separate from the city tax, is collected by the city's official.

The elections under this law have brought together a representative body of men, earnest and progressive. The policy of the board throughout has been a wisely liberal one. It began by sending superintendents and supervisors to visit cities in the North and East whose schools were reputed to have made the greatest progress. Five years ago, when the text-books in all the grades were changed for very much better ones, free books were given to all pupils in the first four grades. Since September of this year free kindergarten material, free books, and writing, drawing, and painting material have been provided throughout the grammar and high schools. The salaries of teachers had been painfully small. Four years ago all third assistants were advanced to the rank of second assistants, with a maximum salary of six hundred dollars. Within the last two years all salaries throughout the grammar schools have been raised twice, making a total increase for the former third assistant of a little more than 23 per cent. By enlisting the interest of enlightened citizens in the election last year, the board succeeded in raising the school tax from four mills on the dollar to six. Manual-training and domestic-science plants have been established in various schools as centers where all pupils of the seventh and eighth grades now have weekly lessons in some of the practical arts.

The problem of housing the increasing numbers of pupils has been no small one. Within a few years there has been erected a number of handsome buildings, seemingly as perfectly adapted to their purpose as one could well imagine. By gifts from the Ladies' Art League, and also from an art-loving merchant, reproductions of the best works of art have been placed in nearly all the schools of the city, so that rooms even in the oldest buildings now wear an aspect wholly unknown to the public-school child of ten years ago.

The number of pupils assigned to one teacher is no longer so great as formerly, and we hope the day may not be far distant when it will be still further reduced to a number that will permit more attention to the individual child.

Perhaps the most characteristic feature of our system of school administration is the definiteness with which responsibility is placed. The superintendent is clearly responsible for the work of the whole system. He nominates candidates for positions, and the board confirms their appointment. No candidate can be appointed if the superintendent and his assistants recognize her as unfitted for the place. Similarly each principal is responsible for the work in his building. If the teachers sent him are unsatisfactory, he must so report.

In how democratic a spirit the government of this seemingly autocratic form of organization is administered may be seen in the method by which the course of study was changed two years ago. When the change was first contemplated, every principal and teacher was invited to send to the superintendent's office, on blanks provided for the purpose and without the writer's signature, any criticism on any subject he or she might see fit to make. When these criticisms had been classified and tabulated, committees were called for each school subject. These were composed of about sixteen members chosen from different schools and represented the eight grammar school grades. After presentation of the criticisms received by the superintendent the members were invited to discuss these freely and to suggest changes.

Vital relations between the parts of the system are maintained by monthly meetings of the supervisory force, by meetings of the superintendent and principals, and by weekly meetings of principals with their teachers.

We come now to progress made in the schoolroom. Here, where the forward step depends, not simply on the expenditure of money, as in the erection of a building or in the free distribution of books, but upon a change in the mental habits of several hundred teachers in the same grade, progress, if it is to be made at all, can be made but slowly. In this the superintendent has shown his wisdom, first in waiting, as a rule, to encourage some principal interested in a certain line of work to take the initiative and test its advisability in his school, and, secondly, in extending this work, not by forcing upon other principals or teachers a practice that had thus approved itself, but, rather, by inviting them to visit the experimental station and to adopt what to them might seem good. Comparison of methods by visits to other schools has very frequently been the means of bringing the most conservative principal to break with some long and dearly cherished practice. This slow method of procedure has saved our school system from the disturbing effect of fads. While, in raising the standard of teaching, the superintendent has been obliged to eliminate from the corps its least efficient members, progress has, on the whole, been made without friction between supervisors and principals, or principals and teachers. We have advanced by healthy growth.

The habit of open-mindedness has also been strengthened by the fortnightly meetings of the Pedagogical Society on Saturdays. This is a voluntary association composed of more than a thousand members. While wholly independent of the school administration, the society has always maintained most cordial relations with the superintendent, who is repeatedly invited to address its members. The president is generally a principal of one of the grammar schools; work in the sections is done with principals, high-school teachers, and occasionally a supervisor or professor of Washington University as leaders. In the section on methods both conservative and radical principals have had an opportunity, either directly or through their teachers, to demonstrate their work with classes. The value of these meetings is seen in the animated discussion to which they have given rise whenever teachers happen to meet in small groups. No one now feels that any pedagogical practice is of necessity fixed for all eternity.

The Pedagogical Society is still further instrumental in keeping up a wholesome circulation of ideas by bringing as lecturers before the teachers of our city men and women who have become eminent in the work of education.

In reporting on the progress made in instruction, two facts of fundamental importance are to be noted: first, that principals are coming more and more to be educational leaders, instead of being, as formerly, merely the chief executive officers in their buildings, whose principal duty it was to make out reports and pass upon the fitness of classes for promotion. Of equal importance with this is the fact that teachers are coming more and more to be real teachers, instead of being mere hearers of recitations.

The first step away from dull routine in the three R's was made by the late principal of the Columbia School, Mr. Howard. Both by the loan of books from the public library and by purchase of sets of books with money contributed by principal and teachers, the value of supplementary reading was proved beyond dispute. The enthusiasm of our librarian, Mr. Crunden, and of his assistant in the juvenile department, Miss Krug, in supplying sets of books for class work, made it easy for many other principals to convince themselves of the value of the work. Within the last five years the board of education has purchased annually five thousand five hundred dollars worth of books, in sets of thirty, that remain as a permanent library in each school. It was thought that the books purchased by the board would lessen the demand for books from the public library. The result has been contrary to our expectation. Teachers who years ago would have thought there was no time for any supplementary reading, if they would do the work prescribed in the course of study successfully, now find that they want more reading matter than this liberality supplies. Children, too, having acquired a taste for reading now want books to take home. The library, therefore, carries on two kinds of work in the schools: it sends, on demand from the teacher and through the supply department of the schools, enough copies of a single book for class work, and also, if desired, a miscellaneous collection of books to be distributed for home reading.

Naturally, with the increased fund of ideas acquired through the reading of more interesting books, there comes a greater freedom in oral and written expression. Children at the end of the second grade are able now to reproduce stories and to tell their own experiences in a manner that five years ago would have been impossible to pupils in the fourth grade.

Arithmetic in the primary grades has been improved also through the stimulus of individual principals. Excessive and deadening drill in the lower grades "on the facts" has been superseded by much intelligent work with objects. The most helpful single device has been the square-inch tablet of very firm, heavy cardboard. By the use of liquid and linear measures, the comparison of areas by means of rectangles, and other figures cut from paper in sets, one for each child, and by the use of rulers in the construction of figures, the teacher has laid the basis for a much greater variety of work than was formerly possible. The board of education supplies to every first- and second-grade room sets of thirty boxes containing each thirty-six square-inch tablets, also thirty foot-rules, and an ample supply of three- by four-inch blank cards upon which the teacher writes as many problems as she wishes for the use of each individual child. Drill in arithmetic is not dispensed with, but is, I think, becoming rationalized.

In the introduction of water-color work and for advance in drawing the initiative came from the superintendent direct. Meetings were called at intervals of two weeks where the teachers of a given grade received instruction from the supervisors of drawing. Each teacher received ten lessons on the new work. The teachers, by dismissing their children when they could not otherwise be provided for, were expected to assemble half an hour before the usual time of dismissal in the afternoon and to remain an hour and a half.

Occasionally meetings are held for the teachers of the primary grades to discuss certain features of their work. To make these meetings small enough to be informal, only one-third of the teachers of a single grade are called at one time. The methods of the primary teacher make it easier for her now than in the past to appreciate the significance of the kindergarten for the child and for her own work with him in the schoolroom. Indeed, we may say that the spirit of the kindergarten has gradually entered the primary room, so that there is no longer the abrupt transition that formerly every earnest kindergarten and primary teacher had to deplore.

A gradual dawning of the dynamic view of life in nature and in society has given a new interest to the teaching of geography. It is in this branch, perhaps more than in any other, that the teacher realizes that she must teach before she can hear a recitation. In spite of the difficulty in conducting excursions in the city with large numbers of children, there are some teachers who take their pupils on very profitable trips.

The problem of nature study in the public schools is most difficult. The life of humanity surges about the city child, while the life of nature is far removed. The introduction of budding twigs and winged seeds into the schoolroom, apart from their natural surroundings, is, at best, but a poor substitute for life in and with nature. The best results so far have been obtained by the efforts of some principals in encouraging school gardens, where these were possible, and of the Engelmann Botanical Club in distributing seeds at a nominal price to children throughout the city for home planting.

A chorus of four thousand public-school children took part in one of the concerts of the national *Sängerfest* held in St. Louis last summer. Their singing, that moved some of the world-famous soloists to tears, testified in no uncertain way to the excellence of their training in music.

The significance of the progress made in all directions throughout the schools lies in this, that it has come because here in St. Louis, as everywhere else, man is more clearly conscious than ever before that, in dealing with children, we are dealing with that which, even in the lowliest, is of infinite worth — that we are dealing with spirit.

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THE PROBLEM OF SCHOOL MANAGEMENT.

EVERY person having charge of a school is confronted with this problem: "How can I best conserve the school forces and bring them into harmonious relations so that the children's interest may be properly protected and the best possible conditions for growth be procured?" There are four factors which enter into the consideration of this problem: the pupil, the teacher, the parent, and the supervisor. Each has rights which all of the other forces must respect. A lack of harmony between any two of these produces a disturbed condition, which has a detrimental influence throughout the whole system. The supervisor must take the initiative in the socialization of these forces; upon him devolves the solution. The school progresses in proportion to his powers of socialization; he must be a social being by birth, education, or adoption.

A teacher once gave to a history class composed of small boys this meaningless expression: "The principal cause of the Civil War was non-intercourse between the North and South." In time the boys lived the meaning into these words; they saw that all troubles have their source in the misunderstanding of conditions and circumstances. In school life the expression applies to all forms of dissension and strife, and the problems of school management today would almost entirely disappear were it not for the non-intercourse among the four factors above cited.

Allow me to present my thought in a word-picture. In a large majority of the schools of today children enter the first day in September, fifty of them in a room presided over by a comparative stranger. This stranger has been told through her training, or has learned by experience, that for disciplinary purposes the children must be kept busy. The first day she usually places a large number of arithmetic problems on the blackboard. She knows that this device will mechanically hold the attention of the class until she can get her bearings. There is no attempt at mutual acquaintanceship. The teacher is not permitted to sit down with her pupils and talk with them in a social way, as she would were she just introduced into a group of fifty young people; the children would become too noisy. She would not be allowed to go out with her children under a neighboring tree or upon the playground and talk with the young people, thus establishing a mutual friendship before the presentation of tasks. She must gain her acquaintance through the children at work and force labor upon her charge during the whole day, until the gong sounds the time for dismissal, when all must leave the building at once. Tired and exhausted, the teacher takes her keys to the office, hangs them on the keyboard, passes out without receiving or giving even a "good night," and goes home to think of the tasks she must put before the pupils the following day. She gets her keys the next morning without passing the compliments of the day with anyone, walks into her room with an air of forced sternness, thinking that her appearance may awe the pupils into submission, and starts the day's work with a determination to conquer or die. Thus is established her daily routine of labor.

The supervisor thinks he must sustain the dignity of his position, and so does not take the trouble to meet his teachers and pupils each morning as he would meet mutual friends, but attempts to impress the whole school with his businesslike attitude. The parent enters the building for some purpose, and meets the supervisor, each attempting to appear as condescending a trifle, and not for one moment does either realize the great mutual relations that exist between them.

If school is the preparation for life, why should we not attempt to bring all of its factors into proper relations, be guided by accepted rules of etiquette, meet each other as we would were we friends as we should be, and deal with each other like intelligent human beings? If the supervisor could meet his teachers, and the teachers meet their pupils, on common ground — meet them as friends, treat them as friends, politely, pleasantly, socially; in fact, if they could bring all the school forces into a harmonious social unit, there would be no problems of school management.

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SOME PROBLEMS IN THE MANAGEMENT OF THE KINDERGARTEN.

OF all problems to be met in the management of a kindergarten, or indeed of any grade of primary work, those that relate to overcrowding are perhaps the most pressing. Setting aside the subject-matter, to teach well in any grade means to know one's children thoroughly, to be resourceful, and to maintain reserve force. The first of these three conditions demands, of course, a thorough psychological training, native keenness, and sympathy. But beyond that, to know one's children one must have an opportunity for acquaintance under working conditions. The teacher cannot know her children until she has seen each child under all the strains and stimuli of free, active employment. This means that the children must work in small groups throughout the school, but most emphatically in the kindergarten. We have here the little child with his abundant vitality, impulsive activity, slight moral restraint, and little power of reasonable control, open to suggestion as to winds that blow, wanting recognition from others, but with little capacity for social organization. This child is to be cared for. He is placed in a society where there is something for all to do. There is material to handle, and there are other people with whom to play. Having small power of co-operation on his own initiative, he must either play with a few, or, if he must associate with a large number, be dominated by one strongest force, the teacher. Ideally, the teacher is the confidant, the organizer of his schemes, the instigator of happy ideas, the source of supplies, or the court of final appeal—all by turns, as the case demands. With the small group this position is easily maintained. There may be play without excitement, and guidance without suppression, and often a quiet that is not generated by the calm of hypnotized consciousness.

The power to co-operate should grow normally greater as a child develops, but it cannot grow where the children are so herded together that for very safety's sake one leader must dictate. Social organization can be imposed from the top down, or from the masses up, even in a kindergarten, but never the latter without the teacher's awareness of every unit in her social whole. She must have a personal contact with each one. So wide is the gap between the kindergarten as it is preached, with its vaunted freedom and self-activity, and the kindergarten as it is taught, that some wise friends of education have even advised that it be allowed to go. It has been asserted that, well proved as the plan is under right conditions, it is not tenable in our present public-school conditions. After the idea has in a measure permeated the school, modifying its régime, to retreat at this point seems a backward step — a step even the gravity of the present problem does not warrant. On the other hand, it would seem a grievous mistake to fix upon our public schools the name and institution with its essence left out. Especially is the need of retaining the original simplicity and freedom of the kindergarten important now by virtue of the universal need of striving for these same qualities through the other grades. There are many factors bound together in this question that need to be seen in their effects upon each other.

1. The public has tried the kindergarten and likes it. Parents want their five-year-olds cared for, made happy and more capable at public expense, which to most people means without immediate personal sacrifice. Hence the kindergarten seems likely to be grafted upon our public-school system — an achievement we all prayed for twenty years ago, but dared not hope to see.

2. The public-school management has found that, from a fair, honest, business point of view, it could not set apart a public schoolroom for the use of kindergarten children, to be empty one-half of every school day. They have seen that it was poor policy to equip the room with costly tools, rent a piano, hire two teachers, and then close it for one-half of the school time. This seemed unjust to the taxpayers of the neighborhood. It is perfectly reasonable and right to make the money so spent serve more children where children are sorely needing these privileges. Hence the establishment of two sessions, accom-

modating double the number of children and using the whole working day of one kindergartner.

3. It does not seem fair on the face of it to pay a kindergartner the same salary for three hours' work that her colleague in the next room receives for five hours' work. Consequently her salary for a half day's work must be on a lower schedule, in which case we must depend for teachers, either upon those who work and can afford to work as much for love as for money, or else upon those who know they are not fit for much and must take what they can get and be thankful. Kindergartners have been trained at considerable outlay of time and money. Two years is a good bit out of a lifetime from a young woman's point of view, but she gladly gives it, in most cases for love of the work, and of course for future gain. In countless cases young women of talent and ideas have gone into the kindergarten training schools through the dire need of some focal point for their energies. This has secured a certain element in the teaching profession which stands for good breeding, for culture, and for specific training. This element we must keep against all odds, but we cannot keep such teachers when they feel that, because of long hours and great numbers, they cannot do good work. On the other hand, many are now working under the name of kindergartners who have turned to the work because they could in the past see through this a means of getting a money-earning place in the world, meeting a minimum of formal educational requirements. They have usually little of either academic or professional training. These people we can well do without. This leaves out entirely a possible third class upon whom we should depend for a high order of work—the women of brains, who have had a costly academic education, and who yet cannot afford to choose this profession over the rival claims of the work of trained nurse, physician, journalist, or teacher in more advanced work. To this class money enough to live in a dignified and comparatively care-free way is an end not to be ignored, and three hours' work, with its corresponding remuneration, is not an attractive outlook. To keep up the standard of educational fitness, the pay of a kindergartner must be kept up to that

of other teachers. Nor does this reflect discredit upon her. But it should be understood that in her three hours she has parted with more vitality and energy than has the teacher of older children in the same length of time.

4. When paid the same salary, it seems only fair that her teaching hours should be but little shorter than those of other teachers. There seems to be no alternative.

These conditions array themselves in a perfectly logical chain. We want good kindergartners. To get them we must pay them as well as other teachers are paid. In that case, to be fair to the other teachers, we must demand of the kindergartners the same length of time in schoolroom work. Also, to be fair to the public we must keep the room full all day. But the bitter consequence is that we are *not* fair to either kindergartner or public. Not only should her hours be shorter than five, but so also should be those of first- and second-grade teachers. Not only should she deal with smaller numbers, but so should they. Not only should she deal with hand-work and active co-operation but so should they. But her lot is hardest of all and the defeat of her purpose more complete; for the younger the child, the more freedom he should have, and, deprived of it, the more does the burden of control rest upon the teacher. Many who have taught all grades of children will testify to this. This statement opens the whole question of the special needs of the younger children in school. Deprecating all division lines as tending toward artificiality and isolation in teaching, one is still compelled to admit that there is such a thing as a difference in the ability shown by adults in understanding the children better at one stage of their development than at another.

The root of these preferences in people of equal culture seems to be largely a matter of personal temperament or mental bias. It means often that the adult has kept young in attitude, that he can easily throw himself into *rapport* with the mood of a child. For educational purposes it is most important for the adult to be so strong in his knowledge of a child's equipment and mental life that he can imaginatively reconstruct it or assume it in a given situation, and look at an experience with the children from their limited point of view. Only then can he know what the next step should be. Those who are "born teachers of little children" probably have this power intuitively. Psychological training added to native elasticity should make of such a person a rare teacher.

But give to even this rare teacher a group of from thirty to fifty five-year-old children, and at once her ability is at a discount. She can neither see each at his best nor each in the full self-expression that shows itself in co-operative work. She is cut off from opportunity to know her children. For one child is at his best in the rôle of an organizer; without the small group she cannot find it out nor utilize the power. Another may have great skill of hand; she cannot make it of value to his companions, as she could in a smaller group. A third might be a natural stimulus to the rest through his singing, and a fourth is a genius at story-telling; but the audiences are too big, and the morning is too short. The effect of individual expression is lost — an effect, be it understood, which must be exerted without adult comment in the way of reinforcement. Here are two great losses to the children and to the teacher.

The second great evil due to overcrowding is that the teacher comes to depend upon the impulses which appeal to the crowd, rather than upon those which call out individual power. Sometimes it is good to be in and of a crowd, to feel the sway of the impulse of the mass. But the individual is then likely to be under the influence of a kind of hypnotism — the hypnotism of numbers. The higher consciousness of the individual is at rest while he is taken possession of by the impulses of the crowd. To lead a crowd is usually to use the resources of the demagogue, no matter how legitimate the end in view. This is healthful, in the long run, neither for the pupil nor for the teacher. A notable example of the relation between mass-training and individual culture is found in chorus singing. To achieve certain effects, one must have the chorus. To achieve artistic effects, each singer of the chorus must not only have feeling and technique, born of individual labor and of individual criticism, but he must bend his interpretation to that of the master. He must subject his individuality to that of the artist autocrat. Where would be the great artistic achievement of a chorus without the multitude of artistic units who are yielding all their musical perceptions and their preferences to the leader, and using all the fruits of individual technique to one end? Such a chorus is a great discipline, but chorus training and chorus work alone will never make it possible for the individual to get the value of the discipline. The illustration applies to almost all school life. Individual revelation, recognition, criticism, suggestion, must precede the mass-work. Individual training is possible only in the small group. The teacher who deals only with mass must tax all her resources in one direction. She must compel, excite, tickle the fancy, appeal largely to imitation; set up the one model and call all to follow it. As the only discipline, this fails to educate either in kindergarten or high school. But with the older children some other factors come in. It is legitimate here to appeal to conscious purpose or loyalty to a cause which can be attained only by subordination and mutual concession. These appeals or suggestions are made to a reasoning body when they are made to a class of children who have passed through six or seven years of school life. Eight years spent in a school ought to make integration from the children's own initiative possible in much larger groups. The eight years should furnish progressive training in democratic forms of control.

Even in the small kindergarten there are occasions when the resources of the teacher are taxed to the utmost; when, to make an organized group of the aggregation, she must use the greatest subtlety in reading the minds of all, and must be very quick to respond with the suggestions that will touch the springs of fruitful action.

The resourcefulness of the kindergartner need not be in the line of hypnotic suggestion, if she deals with a small group. She may give a turn to observation, or start a question, or modify action, if she has time or opportunity to see into, as far as one may, the meaning of each child's attitude or present problem. This does not mean individualism, but the individual touch that is absolutely necessary if the children are really to work together.

She must create conditions for impulses that are socially fruitful, and see that no counter-current prevents them from being carried out. The small power of resistance of new stimuli, the openness to all suggestion, the small power of reasoned control, the limited habitual control—all make children of this age extremely difficult to deal with. The integrating element is certainly the teacher, occasionally to be imitated, followed, and obeyed, most often to be an apparently passive following but informing force. This is the demand for resourcefulness—a resourcefulness that can be brought into play only when she has reserve force. When that is gone, she calls upon habit and ceases to deal originally with the taxing, trying, yet most important impulsive actions. When this natural fresh resourcefulness is worn out, the teacher is prone to misread motives and misdeal with situations. She half realizes this, and urges her wearied mind on frantically to rise to the occasion. Body and mind are at a strain, and the children react to it. Under the two-session plan, in which one teacher cares for one set of children in the morning and repeats her work with another set in the afternoon, all the evils referred to above appear at their worst. The children are herded; the teachers are too fatigued to keep apace of the individual child; the best teachers seek other fields, or take up other work.

There have been some attempts at meeting the questions involved, namely, to secure the same salary for the kindergartner that other teachers receive of the same general ability; to do this and yet demand neither much less work nor so much more that the children suffer the reaction; to do these things and yet to place the children in groups so small that the children can be dealt with as individuals. In some cities the plan has been to give the equal pay, and to give to each teacher two sessions with double sets of children, one in the morning and one in the afternoon. The invariable result has been to make the quality of work poor, to reduce the management of the children, to mass control. On the teacher's side there has been loss of health, and a steady diminution of the cheerful feeling of competence which arises from the sense of good work well done.

It is this that has made some even of the true faith lose confidence in the function of the public kindergarten. A plan that has been tried in one city was to have the same children return for an hour each afternoon. These children were five years old, and lived near by, so that it was not taxing to either them or the kindergartner. Only thirty were permitted in a room. There was but one teacher, and she divided her time between two groups; a young girl aided in some of the work that could be easily performed by a maid whose wages were but two or three dollars a week.

This plan does away with one of the hopeless features of numbers. No teacher can be held responsible for cultivating one hundred souls a day, even in two sessions with an assistant. Many would prefer the thirty children and four hours' work and no assistant, to an assistant, and two sessions with forty children in each. The extra hour taught by the other primary teachers can be made up by the kindergartner in many ways not so trying.

A plan that might be tried where the kindergartners have a sufficiently broad training is to make them general assistants or, if their skill be great enough, general supervisors of hand-work in the primary grades. The contact with the older children would refresh the kindergartner and broaden her outlook. The help to the overburdened primary teacher would be great. It would make possible the forms of hand-work that are longed for but well-nigh impossible in the overcrowded first-, second-, and third-grade rooms. This plan also would make the spacious kindergarten room with its movable furniture, useful to the whole primary school.

If a talent for music, or for story-telling, or for dramatics were possessed by the kindergartner, it could find scope with other grades, and she would have a motive for further study that she does not always feel in her own grade. Surely that one individual something which each person has in some degree can be trained, utilized in some way, to the great gain of the school, while the kindergartner's particular strain of responsibility for a certain set of children can be rested. Suppose that one hour a day were used in this way, it would not be one-third so hard as to teach children of the same age, following the same outline daily as in the morning.

While normal schools and teachers' colleges are so well equipped as many of ours are today for giving special training in drawing and painting, textiles, shop-work, music, and literature, it would be comparatively simple for the kindergartner to specialize in some one of these arts and return to her work with greatly increased scope. I know of many who have succeeded in adding to their usefulness without lessening the quality of the morning work. One young woman taught the singing in her village school and spent the mornings in the kindergarten; another helped in the drawing and painting in the primary grades after her own hours were over; and a third has returned to her *alma mater* to take postgraduate work in science, which she has been recommended to pursue in connection with kindergarten teaching.

Whether these suggestions for the solution of a complex problem are available or not, some way must be found to retain the simplicity and naturalness of the kindergarten, and to keep women of culture in the ranks of public-school kindergartners. Certainly this is a matter which will increasingly commend itself to educators for discussion and administration.

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INEFFICIENT TEACHERS.

A FAIRLY correct classification of nearly every corps of teachers would show a few who are excellent, a large number who are good, and another small class who are inefficient. It is manifestly important that this last division should be reduced to the lowest possible limit in every system of schools. Theoretically, it is not difficult to do this, but as a practical problem it is one of the hardest to solve in school management. "It is much easier to keep them out than to get rid of them after they are in," is a well-known proverb among school superintendents. Notwithstanding this caution, there are probably but few cities that are not employing teachers who ought to be induced to go into other business. In a few instances this is owing to the infirmities of age. Sight, hearing, and amiability of temper have gradually, but surely, failed under the annoyances and petty, but wearing, cares of the schoolroom. It is not easy to determine what should be done in these cases. The children are entitled to the services of the best teachers that can be secured. The schools are not maintained to provide a support for the old or the infirm. Still, school officials will hesitate to discharge the teacher who has given long years of faithful and efficient service in their schools. If a pension could be offered, the difficulty would be removed. But there are few places where this will ever be a practical remedy. The idea of pensioning the teachers in the public schools is not generally received with patience by the taxpayers. Nor do the teachers look with favor upon the plan of requiring them to make an annual contribution to a fund which is to be used to support their aged fellow-workers.

After all, the disposition of the old members of a body of teachers will never present a very serious problem. They will always constitute a small percentage of the entire body.

How can we get rid of those who have evidently made a mistake in choosing their life-work? Some have not that power of control which enables the successful teacher readily and easily to govern a large school of active children. It has been said that "children are not sent to school to be governed, but to be taught." This is true, but it is just as true that they cannot be taught in the ordinary school unless they are governed.

Another class of teachers are good instructors, but irritate parents and children by cutting words and fussy, petty rules and requirements. Then there are those who are deficient in teaching power. Everything is presented to the class without life and spirit, and dulness and stupidity are the prevailing characteristics of the school.

It would seem that it ought not to be difficult to make a change where it is clear that a teacher is not able to render efficient service. When satisfied of this fact, certainly a board of education will be anxious to secure someone who can give better satisfaction. Yet it is a fact that nothing is harder to bring about in a quiet and peaceful way than this very thing.

A few years ago the superintendent of one of the important cities of Illinois recommended to the board of education that three or four teachers be not continued for the coming year. The board adopted his report, and he left on his summer vacation. When he returned he found that all of them had been reappointed. He accepted an offered position in another city, where he is still discharging the duties of superintendent.

In another case it was recommended that about 3 per cent. of the force be discontinued. The report was accepted, and new teachers were appointed. During the vacation several teachers resigned for various personal reasons. When the question of filling these vacancies came before the board, it was found that, owing to persistent appeals and the use of influence, the poorest teacher of those dropped in the spring had been promised the first vacancy that might occur. To prevent injustice to the others, the superintendent suggested that all of those displaced be reinstated, and it was done by a unanimous vote of the board.

It would be unfair to the members of these boards to infer that they were dissatisfied with the recommendations of their superintendents, or that they desired to retain poor teachers in their schools. The members simply lacked the requisite backbone to enable them to withstand the importunities of interested parties.

A gentleman who had presided over the educational affairs of a state and of two of the larger cities of the country gave his experience in these words: "Two subjects alone have given me trouble in school affairs — text-books and teachers. When I have attempted to remove either, unpleasant complications have generally arisen."

After an experience of more than forty years in this city, the writer is willing to advise young superintendents to touch these subjects gently.

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PROBLEMS OF THE INSTITUTE.

THE question of the teachers' institute is receiving a good deal of attention from educators at the present time. The discussions indicate general dissatisfaction with the manner of conducting the institute and with the practical returns made in consideration of its cost. The teachers themselves largely feel that much valuable time is wasted by them in these gatherings. They say the work done is either a "rehashing" of what they have had year after year, or is lacking in practical bearing. The truth of these charges can certainly be verified by those of us who have attended in any given locality the county institutes held for several successive years. The lecturer who inspired us in the youthful days of our school-teaching lost our interest the next year when he went over the same ground, and our eyes were a little more opened to the fact that what he said had little application to things as we had found them in our school and neighborhood.

On the other hand, institute men and educators generally are finding fault with the situation. They are questioning the value of the week they spend in doling out a little bit of this or that pedagogical pabulum on various topics, or in dealing in glittering generalities about "human life" and "problems" of the school and social situations. No one feels more dissatisfied with his work or himself than the person who has had the experience of standing for two or three hours a day before a bright-looking, but passive, audience for a week, and finds Friday night come without his having elicited a single visible reaction or response from his hearers. If he is especially sensitive or young at the business, he packs his grip and sneaks out of town. Of course, there are the private little talks with the few who have questions, and whom he has been fortunate enough to hit in his blind firing —and then there is the fee!

Well, the fact is the institute, as we have it at present, is a fossil. Its life-history belongs to a time when conditions were different from the present. When the teaching element and interests were more largely rural in their make-up than they now are, when facilities for academic and professional instruction were not general, and when summer sessions of regular institutions were not within reach of practically all teachers, then, indeed, the institute performed a positive function as a means of conveying valuable educational material. In the days when Horace Mann came into Ohio, and just prior to that time, there was need of this institution, and it had a great field of usefulness. In such conditions as these the institute had its day. It served its time as well as might be expected of one of the stages in our educational evolution.

Simply because an institution has been useful is no reason for keeping it alive after it has served that usefulness. We need in this as in all other practical affairs constant reorganization to meet new demands. The standard of requirement for teaching in most states has been raised. It takes generally more knowledge than a mere country-school education to secure the proper credentials to teach. Professional training has been made possible as a preliminary prerequisite, and general enlightenment and all sorts of facilities for the spread of culture have given teachers opportunities undreamed of a couple of generations ago. The institute, then, in the form it has been handed down to us, is out of place. It is an expensive relic preserved in our school system. The social aspect of these gatherings often outweighs the instructional and professional sides. There is a chance for the teachers of a given county to come into touch socially with each other and the superintendent, and in some degree to come into a unity of thought and purpose. But even in this, under our present arrangement, there is only limited opportunity, for throughout the sessions the attitude is mainly a passive one, and teachers seldom give expression to the problems peculiar to their own conditions and surroundings.

It might be considered an exaggeration to say that the institute, in its present condition, as an educational force is valueless; but it certainly would receive general assent to say that it could be made very much more efficient. If it is to remain, it must be radically modified, and that soon. In recognition of this fact, modifications have been made in a number of states, and the institute is being brought under some definite control. The present state superintendent of Indiana last summer sent a circular letter to all persons interested in conducting the institutes of that state, in which he submitted certain propositions to be discussed, and called a meeting for that purpose. There seem to have been two especial points to the plan considered: first, that the instructors in institutes of the state form an organization of some sort with a view to their "mutual improvement;" and, second, that the work should be given in such a way as to form continuous courses covering periods of about four years. The practical value of the first point is rather doubtful as long as county superintendents are allowed to hire whom they please for this work, regardless of whether he belongs to the organization or not. There might be value in it from a moral point of view, but there would be need of official or legal recognition of such a body of instructors to make it effective. As to the second point, there is no doubt that it is a wise step in the direction of introducing systematic control into the work. It is to be hoped that the superintendent can carry through such a reform in the management of institutes in his state.

It is not the object of this paper to suggest specific lines along which the institute is to be conducted in order to make it conform to the educational requirements of the time. To do this would involve one in the difficulty of trying to meet conditions peculiar to local communities; and these, after all, must determine the character of the institute. There are many practical questions to be answered by anyone planning to improve the work, but which I shall not attempt to answer. The matter of the teachers' preparation and experience, and how to recognize these, is a first essential consideration. How much the teachers should be required to do; what lines of work should be taken up, and in what way they are to be presented — these belong to local conditions to answer. Whether the institute shall be held in the summer months, and before schools open, or after the work has actually begun and problems have arisen in the minds of the teachers; the question as to the length of the institute—these also will have to be determined by the needs of each community.

In these general considerations, whether of instructor or of method of presenting subject-matter, the fact must not be overlooked that one of the most potent elements in determining the character of the institute is the county superintendent. The educational value of the work rests mainly with him. His spirit and attitude form pretty largely the standard by which the teachers judge the work of the instructor. His professional interest and common-sense in the selection and arrangement of material determine almost entirely what value the institute will have for the county schools. Of course, in a state without this officer more necessarily devolves upon the initiative of the teachers in the selection of committees, but the criticism would hold here as well as in the case of the superintendent. It is hardly necessary to say that system, however good, can never take the place of live educational interest on the part of the local officers.

But whatever modifications are made in the present institute, if it is to be continued at all, must recognize certain fundamental conceptions in educational activity and modern social conditions which are now being disregarded in the work. First and most essential of these requirements is the necessity of recognizing in the conduct of the institute the pedagogical principles underlying present-day teaching. It may seem rather strange to make such a comment in this connection. It would sound as if the teacher of teachers had not been following such pedagogical principles in his work. This is just the fact, however. There is scarcely anything less pedagogical than the work of the ordinary institute. Why the institute lecturer should violate nearly all the canons of modern education is strange, considering the fact that he talks so glibly about these same principles. Very likely he will preach "self-activity" in education, and strictly assume a passive set of individuals to teach. He pours forth his thoughts, if they can always be dignified with that title, without considering whether these meet a response or not. If he can perform the antics of a clown, his listeners are tickled into following him, and may think they have received a great deal, whether they have or not; if he is dry and tedious, they yawn as he proceeds and cheer when he is through. In either case, however, little consideration was given to the active side of the learning mind, and no advantage was taken of the problems that existed in that mind. The monstrosity of the contradiction between what we preach and what we do comes to the surface here very forcibly. The process is a most striking demonstration of our tendency to think old thoughts into new terms and feel secure in our grasp of the growth of educational ideas. Although we have long since thought that we had given up the notion that education consists in the mere accumulation of information and the belief that the learner should merely absorb, we proceed to disregard these facts in everything but words, and give forth our bits of stuff and our little classifications without considering the point of view or the problems, or lack of these, on the part of our hearers. Our grasp of the principles we are setting forth has not worked itself out into our life and practice. This is the why of so few responses and reactions. The teachers have come to regard this as a filling-up time, and the only reaction is the notebook and pencil. What reason is there if teachers do poor work in their schools? Certainly none, if they depend upon the institute for guidance. We ask the teachers to assume that education depends upon self-effort and the reactions that naturally follow from having a question or problem to be answered, and yet we lay all this aside when we do our teaching with them.

This is merely saying that, when the instructor goes into the institute with his line of work prepared without reference to the individuals there, he has no basis for knowing how to make his work of value to them. The teachers with their various grades of preparation and experience are treated on the same plane. Their needs and questions do not form the starting-point and groundwork for discussions. It is not a question of how valuable or sound the ideas presented by the lecturer are as such, but it is a question of initiative, a question of whether the teacher is to be an active or passive member of the body. It is almost universally true that the teachers are wholly passive, and, especially where they are compelled by law to attend the institute, are also submissive to all vagaries advanced. The work must be changed to meet the active interest of the teacher as the basis for instruction, as it is in the case of the pupils in the best modern schoolroom. The instructor shall use the same principles of educational practice that he advocates for the use of the teacher. This failure to realize practically the essentially active characteristics of learning is the most serious defect in institutes, and no amount of pruning or bolstering up in other directions can remedy it.

A second violation of educational principles is like unto the first, namely, the haphazard characteristics of the material usually presented in the institutes. I refer to the plan of taking up work on which the teachers have made no preparation, or which has no definite relations to work they have already been doing, and on which they cannot have many questions. Whether this be by a single lecture on a topic or by a series running for the length of the week, the point holds good. This may be obviated by the plan referred to above, offered by the superintendent of Indiana, of having a course continued through three or four consecutive years. Here the institute will form a clearing-up place for the difficulties that have arisen in the course during the past year, and also a place for mapping out further the work to follow. Thus, if problems are presented or material assigned, say at the beginning of the year, which are to be worked on by the teachers of the county for that whole year, then the institute will be the necessary and valuable place for bringing these things together. If teachers have worked on some topic, or even some book, during the year, and if the instructor comes prepared beforehand for this particular phase, then there is opportunity for teachers and instructor to meet on known ground and for the instructor to be of real service in guiding discussion along profitable lines. But I insist that, unless some such consecutive plan is followed, unless the field was mapped out and prepared for in advance, and unless the teachers bring questions of their own to be worked on, the institute week will be but a poor excuse for the old and formal "pouring-in" process of instruction.

Any improvement in the institute must also be in line with the notions that have come to regard teaching largely, after all, as a matter of attitude. It has come to be seen that method, whether in the sense of the manipulation of devices or the "one and only" process, is of less importance in constituting one a teacher than is the point of view, the spirit, or the atmosphere of the individual. A week is too short a period to hope to accomplish much in positive instruction, particularly when there has not been a common preparation of both instructor and listeners, as suggested above; but it is all too long to devote to what is generally got in the talks on the method of teaching this, that, and the other subject. If we are to have the lecture, pure and unadulterated, let it be rather on general culture and matters of significance in daily life. Method in the schoolroom and method in life are not so vastly different, after all, and a good clear view of the one is pretty nearly sufficient preparation for the other. Less of method and more of attitude and appreciation will be a change for the better in most of our institutes where the lecture is to be continued as we have it. Of course, this point is very largely a matter of the individual instructor, and since there is no way of controlling him at the present time, we can only hope he may catch the spirit of modern method and improve.

The institute must further be made to conform to the fact that the rural teacher, as he was in the days of the origin of that institution, is no more. What with our city schools and consolidated rural schools, what with our spread of intelligence and educational institutions, and what with present-day views of educational thought and practice, there is little need for an institution that keeps all the characteristics and methods of an older period. It is folly to hold on to an organization that was part of a system calculated to set off the teacher as a personage apart from ordinary life and affairs, and to make him a peculiar social class. Like other folly, it is a costly thing.

In summary, then, I should say that the institute in this older form, and as we have it represented almost entirely, has served its principal usefulness; that it still exists, and may continue to exist, because of the difficulty we find in changing the old after it once gets fixed as an institution; and, further than this, that the values which are mainly of a social nature are outweighed by the perpetuation of misconceptions in teaching and true education; and, finally, that any change of the institute for the better must come by the recognition of fundamental conceptions that modern education has worked out. That the change is needed few doubt, and to say that it must soon come is merely to give due credit to the common-sense of the men and women engaged in the teaching profession.

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THE DEVELOPMENT OF A VOCABULARY.

AMONG the many murmurs of dissatisfaction that arise today concerning the results of the teaching of English in our secondary schools is a constantly recurring one of the lack of power of young people to use words with any effectiveness. The complaint is urged with growing frequency that the increased effort of the last ten or fifteen years along the line of language work has not produced results commensurate with the time expended, and that our students have only a thin and meager vocabulary with which to express their thoughts. Even in the high-school period there is a lamentable want of interest in exact, forceful expression. Curiosity with reference to word-usage is so rare as practically to be non-existent. There is no effort at experimentation with language, but rather a ready acceptance of the old and familiar, and an apparent desire to say the thing in mind as easily and quickly as possible and be done with it. Even in the widely prevalent and constantly increasing use of slang the same carelessness and indifference to word-values are perceptible, the meaningless, pointless phrase passing muster quite as rapidly as that which from its terse vividness deserves acceptance. If these criticisms are well founded—and there seems to be little room for doubt—they call for serious consideration, for the failure to acquire a fairly large working vocabulary, or, what is more serious still, the failure to desire such a vocabulary, is a graver charge against our teaching of English than appears on the surface. There can be no question that one of the chief aims of education is to develop the power of clear, definite thought. It is the function of language to assist in this process. This being so, there can be no justification for such emphasis as for years has been laid upon language work, unless its results are to show in thought-power. Given any real expansion of thought and expansion of speech will necessarily follow, for so closely connected are language and thought that no separation is possible. The development of one means the development of the other; a failure in one, a failure in both.

In attempting to get at the root of this lack of success two considerations are of special importance. The first is the symbolic nature of language. This should never be lost sight of. Words as existences, as separate entities, are of no moment in the development of thought; the fact of prime importance is that the word is sign of an idea. It is because words have meaning, because they stand for something, and further because they are the only possible instruments for thinking about the meaning which they symbolize, that the development of a vocabulary is so vital a thing in the development of thought, and that haziness and inaccuracy in the meaning and use of words inevitably mean a like haziness and inaccuracy in thinking. Since this is so, the matter of the acquisition of words becomes a matter of acquisition of meanings. It may seem at first sight unnecessary to lay such emphasis upon this symbolic character of language, as if it were so fundamental a matter that it could not be overlooked, and yet it is to the very neglect of this close interrelation that we owe much of our failure so to teach words as to make them a vital aid in the development of thought. In our earliest effort to assist children in gaining a vocabulary we make much use, and rightly so, of the instinct to imitate. Even in the later stages of word-growth it may still be a very prominent factor, but it brings with it after the first years a danger that we should be more quick to perceive and guard against were this close connection between words and meaning always in our minds. Words may be memorized as parrots memorize them; words may also to a certain extent be used as parrots use them, in combinations correct in form, but empty of meaning. Such word-usage cannot be the result of clear-cut, definite conceptions, nor can symbols so employed be a means of thinking about the ideas for which they stand. Far from aiding in the development of thought, they are rather that which destroys thought by destroying attention to it.

The second consideration calling for attention in our desire to find a sound basis for our work is the language equipment which the child possesses at the time of entering school, together with some knowledge of the way in which he has acquired his stock in trade. Not until something of this is known can certain vital questions be answered that present themselves to teachers at the very beginning of language training: What shall the nature of the work be? How much clear and accurate verbal knowledge ought to be assumed? Is the emphasis to be laid on the acquirement of new words and meanings, or is it necessary to spend time and effort in making old words more definite, in clarifying old meanings? And how shall we work — shall we enlarge and renovate a child's speech in the way it was formed, or shall we invent new methods of procedure?

Certain general steps in the growth of a vocabulary can easily be traced. Since all acquirement of language in the true sense of the term is an acquirement of meaning, and since meaning is the establishment of a fixed relation between a symbol and an idea, the development of speech is dependent upon association. In the first babblings of an infant, in the child's first imitations of the sounds of words, there is none of this; but so soon as he begins to link together names and objects of sense-perception so closely that the one suggests the other, his acquirement of meaning has begun. For some time his additions to his vocabulary are words symbolizing elementary modes of sense-experience; he is in the perceptual stage, and his field of consciousness is filled with sensory and motor impressions, with perhaps their simplest emotional accompaniments. On the language side of his life his whole effort is given to naming his world. But the rapidly expanding mind of the child is not long content with this simple process. At first he sees objects singly; soon he begins to see them in combination; before we know it relations begin to dawn upon his mind, simple ones first of contiguity, then more complex ones of similarity and contrast; and finally, as he gains power to abstract from an object the characteristics that distinguish it, he slowly becomes conscious of likenesses and differences, not only between objects of sense-perception, but between relations as well. And hand in hand with this growing complexity of thought goes a corresponding growth in language, without which any steady advance in thought-power would be impossible. New ideas are fitted with appropriate symbols, by means of which the child may fix his attention on them or bring them once more before the mind in ideal representation, that he may proceed to further analyses and syntheses. Now if this were all, if the child progressed only in such orderly fashion as here indicated, acquiring new ideas only as his experience widened, fitting to each new thought a symbol, and testing its appropriateness by his ability to make it serve his ends, storing up the useful and true for future needs, and rejecting the false, the work of teaching language would be much less difficult; but no such beautiful simplicity exists. Nature in decreeing that man should be an imitative animal, endowed him with the power to work out a system of copies for his use. To a certain extent the child may recapitulate in his development that of the race; by means of this copy system he also outstrips it by leaps and bounds. And one of the most important of the models which civilization has furnished for the use of the learning child is the vocabulary he hears about him. He does not wait to gain words as he needs them; he discovers great bodies of them in use about him, as well as numberless interested friends eager to teach him to utter them in his babbling tongue, though unfortunately for his later use of language, less eager to be sure that each word has its appropriate value. With some of these new acquirements he absorbs at once a meaning, or it may be he invents general meanings to fit the general speech about him. As time goes on, by a process of delimitation, the result of testing by experience, he makes more and more particular these vague generalities, until his use of words approximates that of society about him. Now, if it could be certain that at the beginning of the school period this process of clarifying had been thoroughly done, that to each word acquired had been fitted a clear and definite meaning, our line of work would be easy to decide. Can we be sure of this? Do we not know from the amusing mistakes of children how much greater is the memory for verbal sounds than the knowledge of meaning? The failure to recognize this is the cause of much of our failure in the teaching of language. We start in assuming knowledge that does not exist: we continue to assume that knowledge all along the line. What wonder that by the time the high-school period is reached we are met with hazy, indefinite thought!

So the most important work of the teacher of language is to make sure that each word bears for the child clear and definite significance, and at the same time to increase as rapidly as possible his stock of such definite conceptions. How shall this be done? So far as possible by following the child's own method of development. The order of mental growth is real knowledge before verbal knowledge. A child in his first efforts to gain a vocabulary is in the realm of present experience; so should he be as much as possible in his first school years. The old pedagogical maxim, "things before words," "words through things," had lost none of its weight. Instead of giving to language work the place of chief honor in the curriculum, let it here seem to be subordinated to the enlarging of personal experience; let the child's main interest seem to be the discovery and appropriation to himself of new truths, and let speech grow by natural development out of the desire and the effort to communicate to others his newly attained experience. In the beginning there will be a continuation of the earlier process of naming things, valuable in proportion as the symbols are directly significant because of first-hand experience with the objects for which they stand. The nature work of the lower grades furnishes plentiful material for this training; it also presents a grave danger that has not always been avoided. To begin in the perceptual stage of sense-experience is good; to remain there is a grave error. The whole trend of education should be in the direction of conceptual thinking. Clear perception there must be, but only that the resulting conception may likewise be clear-cut and exact. So along with this process of seeing objects and fitting to each its correspondent sign, must go constant training in the discovery of relations and the finding of appropriate symbols with which to give them expression. This work also should be as much as possible with objects of sense-experience, since only by this means can new words have direct significance. The question arises in this connection whether it is useless to attempt to describe or explain that which the child has not personally experienced, whether it is impossible by means of conceptions already embodied in language to gain new conceptions. To a certain extent this may be done; under the guidance of the teacher a child may put together certain qualities or characteristics already directly experienced and by an act of synthesis gain an indirect conception, but it is a pale and ghost-like shadow of the idea gained by direct experience, and all such teaching should be with a clear recognition of its limitations.

In connection with this matter of the perception of relations there is suggested a weakness in the thought and expressional life of young people which results from insufficient training in this respect. From the simple mental operation involved in seeing that the rose is different from the lily, but that both are flowers, to the subtle, exquisite similes and metaphors of the poet, may seem a long step, but the thought-process in each is the same. Much of the beauty of poetry comes from the rich suggestiveness of its figures of similarity and difference; much of the lucidity and convincingness of the best prose is due to the power to suggest the same relations. One would be slow to say that by continued practice in the detection of relations of likeness and contrast could be produced the illuminating images of a Shakespeare, a Tennyson, or a Ruskin; but there is no question that by constant practice in seeking these relations, and by continued effort to give them expression, much can be done to develop that power which is too often thought to be the exclusive endowment of the literary artist.

A further consideration needs attention so soon as children begin to read. In order that the printed word may have full significance and meaning, its context in the sentence must be grasped: the relation of each symbol must be seen to the other symbols comprising the sentence and to the sentence as a whole. Much of the inability of young people of today to extract the meaning from the printed page is due to failure here; much of the failure is due to misdirected effort on the part of the teacher. There is no lack of laudable endeavor to give significance to words; the conscientious, persistent teacher may even achieve a commendable interest on the part of his students in the dictionary, and still the trouble may be untouched. While the child was in the stage of indicative communication, using only isolated words to suggest his meaning, he was not yet in the realm of speech as such; not till predication began did he enter the field of language proper. So with definition. That kind of exercise, unfortunately still too common, which separates a word or phrase from its context and considers it apart from the relations involved, not only does nothing to advance the acquirement of meaning, but destroys gradually any true conception of the inseparable relation of words to thought.

And so we come back once more to that which is at the root of this whole matter—the vital and indivisible connection between thought and words. It is only by constant emphasis upon this relation, that we may in time hope to give to our young people the help that should be derived from the study of language. Once this is clearly grasped, every reading lesson, every object-lesson, every right use of a text-book, every recitation, whatsoever its subject-matter, becomes a lesson in language, in that it should aim to fit definite, accurate meaning to the printed or spoken sign, and to find exact symbols to express the particular ideas under consideration. And not until this close and vital connection between thought and language has become more than a vague pedagogical theory, and teachers will recognize that the matter of acquirement of definite and exact meaning is the concern of everyone who undertakes to teach, no matter what his subject, can we hope to attain that development in the use of language which alone makes possible any considerable development of thought.

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RE-EXAMINATION OF TEACHERS.

RECENTLY, in a discussion on the teaching of English to foreign-born adults from southern Europe, one speaker referred to their unreadiness to express themselves about tangible things, and their readiness to pour forth their ideas on intangible subjects, such as life, death, immortality. In reply to the question whether things that interest us are not to us the tangible ones, the speaker seemed to favor "the things I have done today" as being more tangible than those reaching beyond the environs of this mortal life. This tangible topic brought to mind the attempts of another speaker to induce a girl who worked in a sweat-shop to expatiate on the things she had done during the day, but the poor girl, with her dull routine, less the intangible, could only reiterate her one all-comprehending refrain, "I sewed pants."

The first speaker's ideas of the tangible and the intangible seemed to rest on a sharp distinction between conduct in life and the thoughts about life that lie back of and determine that conduct. There are many who hold similar views regarding the tangible and the intangible in the work of teachers. They count the methods and results among things manifest, things falling within the realm of the judgment of a supervisor or a superintendent. The teacher's scholarship, on the contrary, is classed with things intangible, alien to those conditions that are involved in the making of a judgment by a superintendent or principal. It is because of this remarkable attitude toward the obvious in the work of the teacher, and the pervasive which determines the obvious, that we hear of superintendents who subject those whom they regard as successful teachers to a written examination from time to time in order to determine their mental status. Laughter would greet the person who should suggest giving a written examination to President Eliot of Harvard, to find out whether, with the numberless demands made upon him and his time, he was keeping up to his highest possible mental level. People would exclaim: "Look at his work! Only a scholarly mind can do such work!"

The kindergartens, the private schools, the colleges, the normal and the technical school, the medical and the law school, the universities — all recognize the relation of scholarship to successful teaching. None of these educational organizations is so dull to the influence of the mental content as to examine the successful teachers within its gates in order to determine whether they should receive an advance in salary. A few years back there appeared an article, based on interviews with college presidents, about college faculties. These interviews brought to light the fact that every college president sees in the faculty of which he is the head, members who are unsatisfactory. In moving about among the students in the colleges, schools, and universities, one soon learns that the students know who are the instructors with something new to offer, and who have struck twelve. Evidently, in the higher institutions, the practice of examining teachers from time to time in order to determine the status of their scholarship is unknown, not because all instructors are keeping abreast of the advance in their subject, but because scholarship, the mental content, is known to be a tangible element in the work of a successful teacher.

In the continued endeavor of the public schools "to better well," there have been introduced at different points, under one guise and another, means for determining that which in the work of teachers is intangible to some superintendents, *i. e.,* the scholarship behind that work. The examination which is supposed to keep teachers up to their highest possible level, or to inform the superintendent of that which is to him imperceptible, strikes at the fundamental positions of modern psychology and educational principles. It rudely separates one's knowledge from that which one can teach intelligently. The two are inseparable. This statement does not impugn the truth of the well-known fact that scholarship does not necessarily make teaching its mode of expression; it affirms that successful teaching is one mode of expression of a valuable mental content.

Recently, in a gathering of teachers, two college presidents stated emphatically that teachers should be treated as are the workers in all other lines; that, after passing the examination for a certificate to teach, they should be judged on the merits of their work only. The position was well taken; but the invidious distinction implied between teachers and other classes of workers, by the promotional examination plan, is not so serious as is the subtle distinction made between scholarship and power in successful teaching.

The conditions attendant upon the conduct of systems of schools are often perplexing, and the onlooker must recognize the efforts of a superintendent to maintain a high standard of scholarship throughout the corps of which he is the head; and yet, while openly expressing appreciation of the earnestness that struggles for better things, one must regret any indications of the absence of an intellectually sympathetic study of the situation before taking action. Scholarship can never result from cramming for an examination. Neither professional nor cultural studies lend themselves to the method of cram. For many years Colonel Parker went from East to West, from North to South, pointing out the evils of cramming for an examination. All that he urged concerning those evils in the mental life of the child is true in the mental life of the teacher. It is well to organize the work of the schools so that teachers shall feel the influence of a great spirit and know that much remains for them to accomplish. But, on the other hand, the enlarged interests of teachers must be reckoned with. Scholarship should not be counted as dross to be refined at the examiner's desk; it should be known as an impelling force back of the work, and also as part of it. It should not be set up for separate measurement as lying outside of successful teaching. The set examination, given for admission to the schools, is necessary. Further sets of questions are mere makeshifts, usurping the place of that personal acquaintance with the work of teachers which the superintendent should esteem it a duty and a pleasure to have.

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BOOK REVIEWS.

The Possibility of a Science of Education. By SAMUEL BOWER SINCLAIR, Vice-Principal of the Normal School, Ottawa, Canada. Chicago: The University of Chicago Press, 1903. Pp. 126.

THOSE who are familiar with Dr. Dewey's educational philosophy will recall the frequent reference that he makes to the educational process as "the reconstruction of experience." It is this idea, and what is involved in it, that Dr. Sinclair uses as a tool in the treatment of the various phases of the discussion of *The Possibility of a Science of Education.* His problem is this: Can there be a science of education? Do we have such a science today; and, if so, is it of any service to the teacher? After a brief statement of his position, the author considers the popular criticisms urged against the professional training of teachers, showing that they are due to a misstatement of the problem, to a lack of knowledge concerning the actual facts, to defects in existing training schools, or to a static view of education and of science.

Chaps. iii and iv are devoted respectively to the dynamic conception of science and the dynamic conception of education. The author rejects the static conception which makes science an end in itself, and adheres to the dynamic or functional conception which "holds that it is impossible to divorce theory from practice." He believes that the object of scientific investigation is to state controlling factors in the realization of ends; that the scientific attitude originates in the "attempt to control processes of observation and interpretation, and to avoid error and get at maximum certainty;" and that "laws are of especial value, not as possessing finality in themselves, but as abstractions made for purposes of control." The several theories that have been current during different epochs are reviewed in the light of the philosophical systems which they respectively reflect. The superiority of the dynamic conception is shown to be due to the fact that the individual is ever changing, that "in the forward movement of experience the shifting of the focus of the present reveals constant change, constant growth." The dynamic conception of science is applied to education so as to show that "educational science arose from an effort to gain control of the educational process, to secure instruments of insight which would enable the educator to make the wisest selection of aims and means." His position regarding education as a science may be seen in the following statement: "It is not claimed that there have been, or can be, discovered educational facts or laws which when memorized will enable the teacher to posit with certainty the best method of procedure in each particular case. The contention is that by following a certain course of preparatory investigation the teacher will gain such insight as will enable him to understand the particular situation in its complex bearings — its needs and the proper mode of response — in a way that would have been entirely impossible without such preliminary training." The author thus bases his argument for a science of education upon the fact that there is a purpose in education, that there are instruments by means of which this purpose can be accomplished, and that the control of these instruments involves careful and continued investigation. "Failure to realize this fact has resulted, on the one hand, in an empirical procedure, depreciating all experimental work, and, on the other, in experimentation of an unscientific character."

The most valuable part of the book is the discussion of educational aims and means and the psychological factor. Each of these subjects is discussed with reference to its function in the "reconstructive process." Emphasis is placed upon the dynamic conception of education, because it is that which transforms what might otherwise be empirical, if not mechanical, activities into an intelligent and orderly process which is worthy to be designated as scientific.

The unity of individual experience is reviewed as it is manifest in the stages of individual development. The later stages are shown to differ from the earlier not so much "in the quality as in the complexity of the experience which reveals itself." For instance, "in the period of later *infancy* the characteristic unity may be said to be the *story*, the present, direct response. In the period of *childhood* it is found in serial order, a relation of means and ends, a history or a scheme, which toward the latter part of the period throws emphasis on *skill*, as the attitude becomes increasingly mediated and indirect. In the *youth* period the unity may be said to be *law, abstraction, generalization;* there is a tendency to seek truth for its own sake, to probe into the hidden meaning of things, to develop technique in a scientific way, and the activity becomes more and more reflective." The unity of experience running through these stages is more apparent when it is considered that perception, memory, imagination, and thought are not regarded as isolated faculties, as in the old "faculty psychology," but as stages of development that are present implicitly or explicitly in every attentive act. "Voluntary attention differs from involuntary in the complexity of the operation." Feeling, knowing, willing are but the three aspects of one experience. "A proper training of one factor means a training for all the others, a correct method of acquisition of knowledge will at the same time afford volitional and emotional training."

Since all teachers use some method, whether they are conscious of it or not, the author emphasizes the importance of the use of those methods which are adapted to the problem in hand. Rejecting imitative methods, except in cases where they are used to "eliminate a number of elements or factors of purely individual experimentation," he argues that method can become an instrument of control only when the teacher understands the conditions which affect the case in question. This involves, on the one hand, a knowledge of the child and his surroundings, and, on the other a knowledge of the subject-matter, the experience which it is the function of the teacher to translate into a form that can be appropriated by the child. The dynamic conception of education makes a demand upon the teacher for more than an ordinary knowledge of the subject. It is necessary for the teacher to know, not merely the subject, but its genesis, and the logical and psychological relations that are involved in a suitable presentation of it to the learner.

To understand the conditions most conducive to educational activity, the teacher needs knowledge that belongs to many different sciences. That which belongs to the science of education is that which is essential to giving the teacher such an insight into the fundamental problems that she is sure to meet as will enable her to deal intelligently with particular cases when they arise. This fact is illustrated by showing the difference in the attitudes and the methods employed by two school principals, one of whom makes use of the static conception in classifying a pupil, and the other of the dynamic conception. Several illustrations are also given of ways in which the training that is given in the best teachers' training schools is of service to the teacher in school management and in teaching.

In the closing chapter, which treats of the technique of educational science, the present status of education is reviewed, the influences detrimental to its growth pointed out, and improvements suggested. A compilation of the best of what is being done and has been done is urged, in order to give the student of educational science a fair start as compared with students in other departments of scientific research. The chapter closes with illustrations of the development of educational technique, and a treatment of the subject in professional training schools.

It is unfortunate that a book which contains so much of what is vital in the solution of educational problems should be written in a style that obscures its meaning. In addition to the difficulty caused by the frequent use of technical terms, there is that which is due to frequent digressions from the main line of thought. Had more care been devoted to the arrangement of the material presented, a continuity of thought could easily have been secured which, doubtless, would have relieved the author from the necessity of using argument in places where those most likely to read the book would prefer exposition.

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Geographic Influences in American History. By ALBERT PERRY BRIGHAM, A.M., F.G.S.A., Professor of Geology in Colgate University. Boston: Ginn & Co., 1903. Pp. x, 366.

THE worth of the geographic factor in accounting for the industries, political history, leisure pursuits, and the character of local and national communities has been under discussion for a great many years. We are told that "character is a function of latitude," that "a man is what he eats," that, in short, climate, topographical conditions, and physical and social environment determine completely the mode and nature of human activities. And while this is still a subject of discussion which has not been settled in favor of the affirmative, it is commonly granted that geographical conditions do play some part in the development of communities and nations. As indicating some of these influences, and their effect, upon American local and national life, the recent work of Professor Brigham is of more than usual interest.

His method of presentation is simple. The plan evidently is first to present geographic conditions and then to show how history is made and influenced thereby. For purposes of treatment the book is divided into twelve chapters, and each chapter, except the last, which is not directly relevant to the general theme, deals with a distinct geographical unit; or a group of units, as the ones on the Civil War and on Geography and American destiny. The headings of the chapters will represent in a somewhat rhetorical way the divisions intended. These are: "The Eastern Gateway," "Shoreline and Hilltop of New England," "The Appalachian Barrier," "The Great Lakes and American Commerce," "The Prairie Country," "Cotton, Rice and Corn," "Where Little Rain Falls," "Mountain, Mine and Forest," "From Golden Gate to Puget Sound."

The underlying assumption is that human effort in pursuit of its aims and vocations follows the line of least resistance, and if necessity and this resistance compel it, it will change its more immediate aims and vocations in conformity thereto. This explains, for instance, the importance of the only adequate gap in the Appalachian barrier, the Mohawk valley, the Gateway of the East. On the eastern seaboard lay New York with its magnificent harbor, land-locked and ample, with its central situation and unlimited terminal facilities. And away to the west of the Appalachians stretched two thousand miles abounding in game, teeming with interest for the adventurous souls of old New England eagerly anxious to be in the vanguard of the host destined later to people its fertile extent. Hence the desire for a feasible route, and the importance of such a route when once it was found adequate. "The meaning of the Mohawk valley is that the entire region of the Great Lakes and the vast prairie and mountain regions of the West became tributary to the rising metropolis on Manhatten Island." Another meaning is that the North and West developed much more rapidly than the South and West separated from the sea by mountains so difficult of ascent that less than twenty years ago the first railroad was put across them. Isolated quotations are at best mutilations, but, granting this limitation, the following represent in an interesting way the trend of the work: "New England could not be the key of eastern America in time of war. Her valleys do not run into the heart of the continent." "If, without a mountain barrier, the Atlantic plains had merged into a land like the prairies, it would be hard to say how American history would have shaped itself." "But we wish now to see how the overflow from the East centered upon Pittsburg and passed down the Ohio. . . . . The mountains were like a sieve with openings enough, though small, and everything that went through centered, as in a funnel, in the upper Ohio valleys." Of the Prairie country he says: "But will not the pendulum swing and carry the central states to their natural fellowship with their southern geographical neighbors, giving to geographic conditions their proper control again?" Of California: "Life there is a little fresher, a little richer in its physical aspects, but for this reason more characteristically American." Of Kansas we read: "A people pressed for ready money is a people ready to preach and hold extraordinary doctrines, and thus we are able to see how the Populistic wave of antagonism to eastern financial ideas swept the plain, and how a large political and social movement grew out of the failure of a frontier population to adjust itself properly to geographic conditions."

The author's information, and his evident love for the subject, creates an open-eyed interest in the reader; the language is well chosen and the literary style good. As the work of a specialist, the subject-matter is up to date and shows a breadth of outlook that is quite refreshing in a text-book writer. Considerable use is made of geologic data in explaining present configurations and their effects. The breadth of outlook is evidenced, in particular, in the treatment given of the South, of irrigation, and of forestry. The physiographer is written all over the book. One's impression after a reading is that it is mostly geography. This is true in point of pages, of detail given, and from the fact that most of the history correlated is that of territorial occupation, of migration, and of settlement. In only one chapter does he get into "pure" history: the chapter on the Civil War. The treatment of the taking of Vicksburg, the battles around Chattanooga, and the campaigns in the Shenandoah is fine, if for no other reason than that it illustrates the method by which the organic relationship between geography and "pure" history may be investigated and investigated interestingly. This chapter is of interest for the further reason that here is shown more clearly than elsewhere the art of judicious selection of material. Any work that deals with the relations of two correlates should treat every element of one so that its correlation with an element in the other will be affirmed or denied; yet in many places — *e. g.*, pp. 53-58, 76-86, and in the chapter on "The Prairie Country — a good deal of material is introduced which is not correlated to any term on the other side. There is an attempt made to paint the geographic picture too wide and too continuous for the space at hand.

The judicious selection of good illustrations is pleasingly in contrast to the common extravagant use of illustrations without regard to their appropriateness. All the maps are important for the elucidation of the text though some of them — *e. g.*, the maps of the northern Appalachians and Chattanooga — are too meagerly marked to serve as a reference for all the matter given.

These criticisms aside, the work has the right ring. The spirit is good, the style is popular and withall highly suggestive. For a teacher Professor Brigham's work possesses more than ordinary value, both because of the matter given and because it illustrates how by this method the investigation of the organic relationship of geography to history can be clothed in attractive garb and pushed beyond the stages of relationship more obviously organic into the more specialized forms of each.

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Genetic Psychology for Teachers. By CHARLES HUBBARD JUDD, PH.D. ("International Education Series,") New York: D. Appleton & Co., 1903. Pp. xii, 329.

THIS book has apparently grown out of the author's "experiences of a number of years spent in teaching phychology to classes of teachers." It has the advantage of being in close touch with some of the more pressing and practical problems of elementary-school teaching, as these problems appear from the standpoint of one not directly engaged in the work of such teaching. "Racial and Individual Development in Writing," "The Process of Reading," "The Idea of Number," are chapter headings in the latter part of the book, and represent the application of genetic psychology to the traditional three R's.

What might fairly be called the controlling idea of the book is the idea that genetic psychology properly begins, like charity, at home; that is, with the study of the development of one's own mental processes. Genetic psychology has too often been narrowly conceived as a study of the infant mind, as child-study, as the analysis of the growth of some other mind. Dr. Judd would have it clearly understood by teachers that their minds, too, have not necessarily ceased to grow, and that there are distinct advantages in watching the unfolding of some mental process at first hand. One of the chief advantages of this introspective genetic psychology is that it affords a basis for studying mental growth wherever found, in the minds of children, as well as in one's own. "Teacher-Study," the special theme of the introductory chapter, is as important for education as "child-study;" in fact it is a prerequisite to "child-study."

The author has ranged far and near for illustrative material to reinforce this idea. Results obtained in the laboratory study of illusions have been turned to account, for example, to show that even such apparently fixed and objective mental experiences as our perceptions of space relationships are susceptible to further development in some instances, which can be studied to some degree at first hand by the nontechnical observer. There is also a chapter devoted to a psychological analysis of the teacher's writing habit — an analysis which can hardly fail to give the teacher of writing a more intelligent and sympathetic appreciation of what probably goes on in the experience of a child learning to write. In the chapter on "Racial and Individual Development in Writing" interesting historical material has been brought together to illustrate the evolution of written symbols. Without directly attacking any system of penmanship or line of copybooks, Dr. Judd has done much both in the psychological and in the historical discussion toward emancipating the teacher from the dogmatism of special methods that tend to sacrifice individuality to a copper-plate uniformity. Individuality in penmanship it is desirable to train, so I understand the argument to run, as well as individuality in other forms of expression. Legibility and fluency are, of course, the main desiderata in this form of expression. But the ways of reaching these ends lie along the paths of individual habits. "Every child should be allowed to sit and hold his pen and paper and move his hand in the way best suited to develop his own individual mode of action" (p. 228). It should hardly be necessary to add that such an opportunity to develop individual mode of action is not a sort of pedagogical *laissez-faire*. "Every child is an individual problem to the teacher." "Individual training means a careful study of individual needs, and a suggestive, helpful guidance on the part of the teacher."

It was the part of good pedagogy for the author to direct his psychological analyses and applications to the subjects in which most of his auditors were principally engaged — the teaching of reading, writing, and arithmetic. . It is doubtless well also for those who are teaching in other branches — geography, manual training, natural science, the arts — to be so clearly and forcibly reminded that the three R's have a good deal of educational significance, after all, from the standpoint of genetic psychology. But the book suffers in some respects from its own restrictions of outlook. It seems to see little value in constructive work, in manual training, in laboratory work, save as attempted short-cuts to the present values and meanings of things, superseding the roundabout, but richer and more cultivating, paths of memory and reflection.

"One can avoid memory work through training in the use of things. This is the observation which experience forces upon us at all points, and this is the principle that our modern education is so eagerly taking up in all departments — in the kindergarten, in the constructive work of the elementary schools, in manual training, and in the laboratory work of our high schools and colleges. Learn by use, learn by doing, and you shall have followed the shortest route to recognition of present, practical meanings." (P. 62.)

One might be willing to entertain such a view as this as an indictment of mechanical, external, unpsychological methods of teaching constructive work, manual training, and laboratory science. But are we to understand that these forms of school work simply represent lines of least resistance, in the Spencerian sense? Spencer would be made to support some of his own arguments for scientific education in a rather curious way. Undoubtedly students could be found who have drifted into such courses out of mental inertia. But students could also be found who have continued in the study of literature, or history, say, because these subjects seemed to afford the lines of least resistance.

The term "memory" is used, as the discussion in the context of the paragraph quoted would indicate, in the sense of reflection, of revision, not in the sense of an almost sheer repetition of a past experience. I have been unable to see that constructive work, manual training, laboratory work in science, do not give rise to difficulties, problems, and projects which call into play the powers of memory, of reflection, at least as often as the three R's give rise to opportunities for fixing mechanical habits of learning by use, by doing. To associate memory, however defined, with any particular form of discipline, or to dissociate it from constructive and experimental activities, is to out-faculty the faculty psychology.

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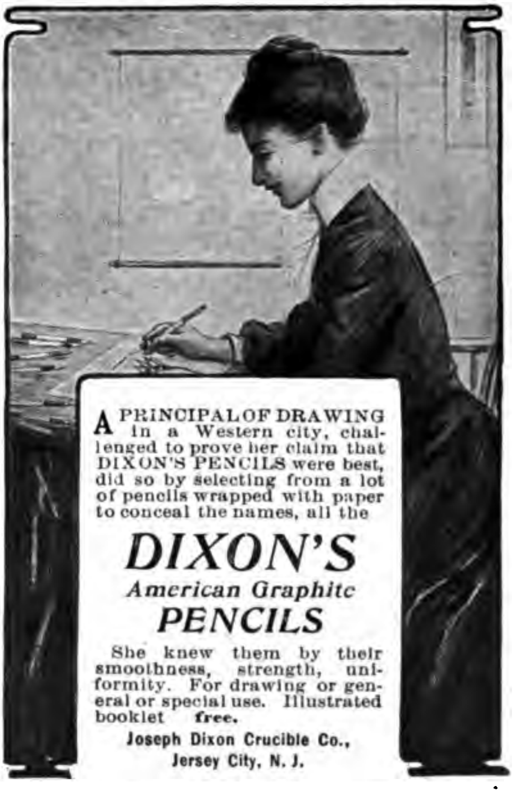

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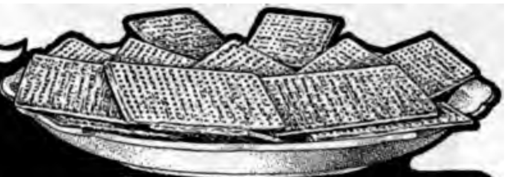

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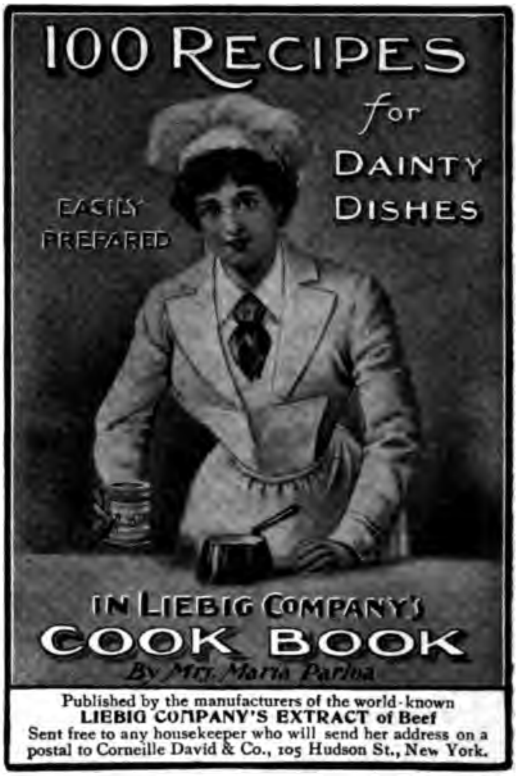

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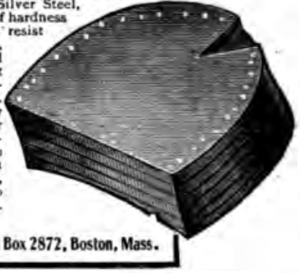

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The material in this number was arranged for and edited by Zonia Baber, Associate Professor of the Teaching of Geography and Geology

CONTENTS FOR JANUARY, 1904

THE SCOPE OF GEOGRAPHY - - - - - - - - - - - - ZONIA BABER 257
THE HUMAN RESPONSE TO THE PHYSICAL ENVIRONMENT - J. PAUL GOODE 271
ASTRO-GEOGRAPHY IN THE GRADES - - - - - - - GEORGE W. MYERS 283
ASTRO-GEOGRAPHY FOR CHILDREN - - - - - - - KATHERINE B. CAMP 290
GRAPHIC REPRESENTATION IN GEOGRAPHY - - GEORGE THORNE-THOMSEN 296
WHERE TO PROCURE PICTURES - - - - - - - - ANNA CHISHOLM 309
ELEMENTARY FIELD WORK. I - - - - - - - - - - I. B. MEYERS 312
THE DEVELOPMENT OF THE SCHOOL MUSEUM. II - - - - I. B. MEYERS 319
A SERIES OF LESSONS FOR THE SIXTH GRADE - - - - ELSIE A. WYGANT 325
A SMALL LIBRARY - - - - - - - - - - - - - - - - Z. B. 333
BOOKS RECEIVED - - - - - - - - - - - - - - - - - 335

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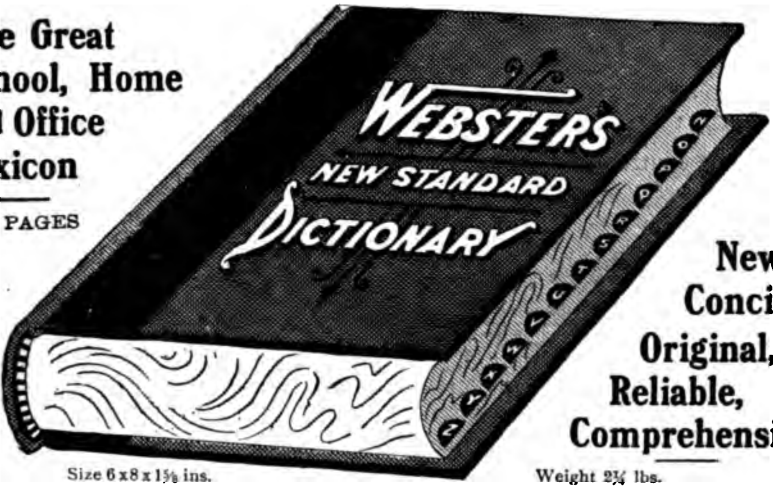

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THE SCOPE OF GEOGRAPHY.

THE position of any subject in the school curriculum depends upon its appraised educational worth. Sometimes the mirror of values is turned toward the future, at other times it claims to reflect the present. Geography has moved up and down the scale of educational importance since the time of the cultured Athenians, disappearing entirely from the curriculum when its import was low, returning when the public interest expanded from local to international concern, or when the physical and intellectual life of the people was focused into the same era of time. Geography has never occupied the first place in the school curriculum as a cultural subject, but in rare instances its utility has given it the highest standing, as in the school of navigation established by Prince Henry at Segres in the fifteenth century, and in modern times in the colonial schools maintained by certain European governments. The educational status of the subject has not been due to its content, but to its pedagogy. Teachers have looked upon it as a collection of facts which could be memorized; and if action rather than speech can be taken as a reflex of thought, the majority of the army of teachers still maintain this conception. This does not refer to the superior teachers in every department from the kindergarten to the college, but to the great teaching body which shapes our educational policies. This statement is not based upon deductions from pessimistic theory, but from work seen during the last year in schools located between the Rocky Mountains and Newfoundland.

The slowness of the progress of educational ideas is realized when we read what Comenius said more than three centuries ago: "We know the elements of geography when we learn the nature of the mountains, the plains, the rivers, citadels, or states according to the section of the place in which we were reared." I doubt if the pedagogues of Comenius's day lent responsive ear to his teaching, but once a true chord is struck it vibrates forever.

A century and a half later Rousseau took up the strain, and in his *Emile* says: "Let him learn his first geography in the town he inhabits, stimulating his imagination by expressing wonder as to natural phenomena."

One hundred years ago Pestalozzi did more than point out the way the pedagogically redeemed should go. He, rising higher than most educational philosophers, tested by practice his inspiring theories. Professor Louis Vuillemin in *Remembrances* describes the method of geography teaching when Pestalozzi had his school at Yverdon, Switzerland. He says:

> The first elements of geography were taught us on the soil. As a beginning our walk was directed toward a narrow valley, in the neighborhood of Yverdon, through which the Buron flows. We were made to contemplate it as a whole and in detail, until we had a true and complete mental picture of it. Then we were each invited to lay in a store of clay which was found on one side of the valley, and we wrapped it up in large sheets of paper we had brought for the purpose. On our return to the castle the long tables were divided among us, and we were left to reproduce in relief the valley which we had just studied. The following days brought new walks and new explorations, each furnishing a higher point of view, and each time a fresh extension was given to our work. We went on in this manner until we had accomplished the study of the basin of the Buron, and from the height of Monté La, which completely overlooks it, had grasped it in its entirety; and not until we had finished our reliefs, then, but only then, we passed from the relief to the geograpic map, not being shown it until we had thus acquired an understanding of it.

This, so far as I can find, is the beginning of field work, which has been carried to a greater extent in Switzerland than in any other country in the world.

Ritter made two visits to Pestalozzi's school at Yverdon and was much gratified by what he saw. He says:

> I have learned to value that method which is based upon the nature of

> the child . . . . it is now my business to bring this method to bear within the domain of geography. There is between nature study and history a great gap to be filled up. I have left Yverdon firmly resolved to fulfil the promise I made to Pestalozzi, namely, to apply his method to geography.

The United States owes to Karl Ritter an especial debt of gratitude, not only for his inspiring books, but for the instruction he gave to his excellent pupil, Arnold Guyot, who brought reform in geography teaching to this country. Harvard little knew what she was doing for the schools of America when, in 1848, she called from Europe that great teacher.

Mr. W. A. Alcott wrote in the *American Journal of Education* in 1858:

> Prior to this, geography as a science had received little or no attention in the United States. A few schools studied Morse's *Geography,* a few others used a sort of reading book by Nathaniel Dwight, known as *System of Geography,* which was arranged in the form of questions and answers, but the majority of schools paid no attention whatever to the subject.

In 1825 Mr. Woodbridge and Mrs. Willard published a geography which was much in advance of those then in use. Immediately afterward Mr. Woodbridge sailed for Europe, being the first American who ever traveled abroad to enrich geography teaching.

The learning of boundaries and capitals, the location of cities and rivers, was the burden imposed upon the memories of helpless children. Some ingenious teacher, realizing the unspeakable drudgery such a task demanded, devised the plan of singing the geographic text to stimulate the flagging brain over the tedious road, just as the band plays to aid the wearied soldier on his march. I cannot find the name of the author to whom the honor of that most humane invention is due, but the method prevailed in many places in the States throughout the fifties and early sixties.

In 1866 Guyot's *Common School Geographies* appeared. The teachers were poorly equipped for using them, and in the majority of schools the books were unintelligible. Hence, Guyot's *Geographies* proved a financial failure. Mr. Tucker, of New York, in a letter written recently said: " Colonel Parker, of Quincy, Mass., was one among the first teachers to take up the work of Guyot. It was in Quincy that he introduced modeling as a means of geographic expression."

Only within the last decade in this country has geography been able to rear its modest head into the etherial realm of intellect dominated by mathematics, and move in the exclusive set of culture presided over by literature, art, and foreign languages.

According to the dictionaries, "geography" is derived from two Greek words, γέα, "earth," and γραφή, "description," and I think we may say the progress in the teaching of geography has been shown in the transfer of the stress in the pronunciation of the word to the "gea" instead of the "graphe," crudely to interpret a statement once made by Professor T. C. Chamberlin. In the study of the "gea"—the earth—there is a demand for the training of all the senses which the study of the "graphe" precludes. Preyer says: "The fundamental condition of all mentality is activity of the senses." Unless the perceptive faculties are trained, thinking will be defective and judgment unreliable.

Since the study of geography was and is relegated principally to the middle grades in the elementary school, the pedagogy of the subject has been in harmony with psychological beliefs. Reason was thought to be a function of maturity, while the faculty of memory characterized the youthful mind. With the progress of child-study has come a change in the attitude toward the subjects of study. It has been found that even young children are interested in causal relations. Mr. Earl Barnes reports, as a result of his tests with thousands of children, that the majority are interested in the use of a thing rather than in its form or color; they wish to know the relation of things in this great world about them. It is in the intelligent conception of causal relation that we find the superiority of the civilized men over the untutored savage. It is not in the mere statement of causal relation which the child may memorize that he finds pleasure, but in the solution of a problem—the problem, his problem, and not that of a teacher—that he finds the greatest satisfaction. Children, as well as the adult, like to reason from known data to unknown consequences.

The belief that memorized facts stored away in the mind will be ready for use at a convenient time, has hypnotized the best of us. We are daily surprised at the emptiness of the intellectual store-houses of our students, into which we have previously poured a wealth of choicest facts. We fail in the pedagogical application of our knowledge of psychology for the selfsame reason, that the pupil finds his facts unusable. It was not acquired through action. We forget that images which make up the fabric of vital thinking must be related.

Dr. Dewey says:

> Knowledge may be regarded as a sort of bridge, or connecting link, between some difficulty in action and a further successful or harmonized activity. Its significance lies in this intermediate position; that when knowledge is isolated from its origin and its goal it becomes artificial. From this point of view, we do not know how it came into existence, or for what it exists; in being made an end in itself it is made unreal. Knowledge is reduced to information, a load or burden of facts, which the individual has to carry without intelligent purpose.

The student discovers too late that ordinary unrelated knowledge is not power; that only scientific knowledge — unified, related experiences — are valuable.

The test we impose to discern the ability of our students is as fallacious as our knowledge-giving plan. We too often measure the student's power by what he can say, while the world classifies him by what he can do. Life justly criticises our pedagogic results.

The measure of progress in teaching geography is nowhere more strongly marked than in the use of field work. It was begun by Pestalozzi, but has made more headway in this country during the last decade than during all preceding time. Yet when the number of schools doing field work is compared with those which never leave the school buildings, the percentage is distressingly small. Field work has become an almost universal practice in the classes in geology and botany of the best universities of this country, and in some of the high schools a few excursions are made yearly. But in the elementary schools, in the majority of districts, field work is unknown. Why the teaching of Comenius, Rousseau, Pestalozzi, Ritter, Guyot, and others, together with that of all our noted modern geographers, has failed to impress the lesson of field work upon the teaching body, finds its answer, I believe, in four separate causes: (1) The lack of appreciation by the teachers and the parents of its value in illuminating the geography work. (2) The timidity of the teachers in meeting difficulties which the field presents. Few teachers have been trained to read the expression of the world which lies about them; hence they naturally shrink from placing themselves in the position of instructor before a class of active, inquiring minds facing real, natural problems. (3) The physical strain of taking care of, say, forty pupils outside the schoolroom without proper assistance. (4) The expense which is necessarily incurred in visiting places beyond the walking distance from the school building. We know, however, that, if this objection is reduced to its lowest terms, it is not insurmountable. If field work were considered as valuable as other forms of instruction, the expense would not be prohibitive. The American people have, on the whole, what they truly want. Look at their school buildings and equipment! If we actively desired field work, it would be a part of every school curriculum. We passively want clean streets and good civic governments, but not until we make our demands active will they be granted. The majority of people really believe knowledge is acquired from books. Hence, if children can recite the contents of certain books, they are educated. Books certainly have the greatest function in our modern civilization, but we are all fortunately, or unfortunately, so constructed that we can read from books only our previous self-experience. It is the grossest absurdity to expect the child whose skyline is an eternal stretch of irregular roofs, and whose landscape is made up of dirty alleys, to appreciate the meaning of broad stretches of rolling prairies, dense tropical forests, and high, snow-capped mountains. Yet we find the books which are given to these children who are so unfortunately situated containing the same text as that provided for the children who spend their summers in the country and who travel some part of every year. I believe if the money spent on the geographies for these poor districts was devoted to field excursions, under the direction of skilful teachers, there would be a much larger intellectual and moral return in citizenship than is received from the present investment.

With the best possible conditions the present geographic text is not what we wish it were. There has been a great improvement in the last few years; yet there is still much to be desired. Since advance in geography teaching has been largely in the universities, the best texts have been produced for the colleges. Many of the best books written for children have been produced by college professors, and in some cases they are illy adapted to elementary schools. As in everything else, we have a heavy geographic burden due to inheritance. The old cosmographies which were produced during the fifteenth and sixteenth centuries have, I believe, had no small effect upon the geographies of today. The modest title of one by Sebastian Munster, which appeared about the year 1534, illustrates their comprehensive character. It reads: *Cosmography — A Description of All the Lands and States of the Whole Earth — Its People, Animals, Products, Governments, Religions, etc.* Notwithstanding the growth of geographic knowledge, which bears in upon us as we read some of the astonishing statements in this popular work which went through twenty-four editions — such as, "the German Ocean is an inland sea," "Iceland is joined to Norway" — we might still put the same title on the cover of many geographies used in our schools today. We have attempted to boil down all the knowledge of all the countries of the whole earth into a book of, say, 160 pages, with the result that it needs much intellectual diluting to be even palatable or digestible. The geographic readers have been a great boom to teachers of elementary geography, yet more are sorely needed. The good teacher must be superior to any text, but excellent books are invaluable.

To aid in solving problems found in the field and in books a laboratory is necessary. Field excursions alone can rarely give the answers to problems which arise as to the genesis of the forms of the earth which we find around us. We see a valley and may trace its circuitous path from its source to its débouchure, but the process of valley-making is so slow, except during severe storms, that we cannot catch nature in magnified action. Hence the physical laboratory is a necessity for the understanding of physical processes. But the pupil himself should have the problem which he has found in nature and brings to the laboratory for solution. Crude apparatus which the child understands and can easily manipulate may be of greater value in experimentation than more refined materials. In the use of a hose and a hole in the ground the child may find greater scope than in an expensive laboratory. The young children love action; hence laboratory experiments are not only fascinating to them, but intellectually productive.

There is, perhaps, no greater evidence of the progress in geography teaching than the advance in the use of maps in all the schools. Yet we regret that what Rousseau said a century and a half ago is applicable to too much of our teaching today:

> In every study signs are worthless without the idea they are to represent. Notwithstanding the child's study is confined to signs, it never becomes able to understand the things themselves. While one endeavors to give him an acquaintance with the earth, he makes the acquaintance of the map; he learns the names of cities, countries, and rivers; to the child they are nowhere except on paper.

If you doubt the correctness of the above statement as applied to present educational conditions, try the experiment upon a group of people of naming different places on the earth's surface, letting the hearers describe the first images which come into consciousness. I feel a confidence in saying that a large percentage of any gathering, geographers excepted of course, will see a map instead of the reality, for places they have never visited. Many noted teachers argue that they must see the map first, then force it out of consciousness by the image of the things or places for which it stands. This appears to be an intellectual extravagance. We cannot, I believe, place too high a value upon maps. Civilization could not exist without them, but to encumber the minds of helpless children with images of parti-colored maps, which always appear in consciousness instead of the correspondence to the real country or city, is, it seems to me, little short of a pedagogic crime. We cannot help agreeing with Rousseau in what he says in *Emile:*

> You want to teach the child geography, and you seek for globes, spheres, maps, and a host of apparatus! What is the good of all these representations? Why do you not begin by showing him the object itself, so that he knows at least what you are speaking to him about? . . . . After all, it does not so much matter that he should know exactly the topography of the country as how to teach himself about it; it matters little whether he have maps in his head so long as he understands well what they represent and has a clear idea of the art necessary to make them. Behold already the difference between the knowledge of your pupils and the ignorance of mine! They know their maps; he makes them.

It is through making maps of regions visited that the child understands conventions used in map-making. He may make a simple road map showing the direction of travel upon an excursion, or may model the relief seen in sand, or represent it by shading or hatching lines, or show it by contours, or by the international color scheme; and by so doing he gains the alphabet of maps, which is one of the highest accomplishments of the geographer.

Map-making is one of the oldest of the arts. Hence, from the history of its development we may get pedagogic instruction. Among primitive people the necessity for maps found a satisfactory response long before writing was invented. Stanley tells of the aid he received from the Uganda, who made relief maps of their country in the sands along the lakeshores. Travelers in every part of the world have acknowledged a similar indebtedness to the untutored natives, from the islands of the south seas to the frozen shores of Greenland. Finding that fixed maps could not meet the needs of the hunter, the warrior, and the seafarer, they have shown great ingenuity in the manufacture of portable maps.

The Micronesians, of Marshall Islands, made maps of their islands by fastening stones or shells to a background of woven splints of palm, the size and location of the shells or stones corresponding to the area and position of the islands. They expressed their knowledge of hydrography by widening the splints where the swells or waves increased, as would be the case on nearing land. Captain Cook paid high tribute to the cartographic ability of the south sea islanders. He told of his successful cruise through forty degrees of longitude among the Australian archipelago under the guidance of Tupaya, a native of Tahiti. The Ainos of Japan, and the Tunguses and other tribes of Siberia, have won the gratitude of travelers by the maps which they have made for them. Franklin, Parry, Hayes, and other arctic explorers have expressed their appreciation of maps made by the Eskimos. The entire Aztec country was mapped when the Spaniards reached Mexico, and these maps were of such excellence that Cortez traveled hundreds of miles by their guidance. They represented mountains, rivers, towns, forests, and political divisions with much detail and accuracy. The Peruvians were also quite advanced in the art of cartography when stricken by the Spanish. They possessed relief and political maps of their country·which were of great value to their destroyers.

Economic interests seem to have been a great stimulus to the ancient as well as to the modern map-makers, for the oldest map known to be in existence is one which represents a mining district in Nubia, made during the reign of Rameses II. It represents the mountains and valleys, showing rocks which were rich in ore and those which were barren, not omitting the wells and the few scattered trees along the road leading into that desolate country.

The great problem of map-making with our students as well as in the evolution of cartography has been to give graphic expression of geographic facts consistent with an assumed convention. While we may smile at the maps of the Middle Ages, which contain pictures of mountains, houses, men, and imaginary monsters, yet we must commend the motive which prompted this grotesque representation, for it was a direct appeal to the imagination, and a map which does not arouse the imagination fails in its purpose.

Hereford's very fanciful map, which gave little heed to the restraining influence of truth, but reveled in delightful imagination when knowledge was exhausted, lays high claim to usefulness, for to it is imputed the honor of so arousing the imagination of Milton that his poetic fancy gave *Paradise Lost* to the world.

The progress of map-making has been in the direction of greater truthfulness, which also means greater usefulness, but the attempt to be truthful and at the same time graphic has been the maelstrom which has engulfed many cartographers. Those who are striving for accuracy alone in expression cry out against their fellows who are working for more dramatic representation; unwarranted exaggeration is the persistent charge. Yet the fanciful maps of the Middle Ages were more truthful in intellectual result than the best scientific maps of today that arouse only their correspondence in consciousness. But the fault is not in the maps, but in our inability to read the symbol.

It goes without saying that everything which tends to fuller geographic concepts aids in the interpretation of geographic symbols. The ease with which the untrained geographer reads a map depends upon its graphic qualities. Hence reliefs, shaded, and hachure maps offer fewer difficulties to beginners than contour, political, and those made according to the international color scheme, or other conventions. As has been said, the mapping of the region visited, using the different conventions which obtain in maps in daily use, is the surest way of understanding the symbols employed, but copying of maps, considered from the educative standpoint, has little, if anything, to commend it and much to condemn it. There is no mental activity in such a process, and much time is squandered which could be spent to better advantage.

If the student, in expressing his geographic concepts, is required to use a convention differing from the one employed in the map he has been studying, the demand will force him to interpret the map into terms of reality. If he has been studying contour maps, he should represent the relief of the area studied by modeling or by drawing with hatching lines, by shading, or by the use of some color scheme.

Progress in field and laboratory work, and the use of pictures, models, maps, and charts, in teaching geography are not the only signs which herald its progress. We are now beginning to see the relation which exists between the sciences and history. The influence of physical conditions upon the biological aspect of the race, which was so strongly brought out by Darwin and Lamarck, is now being applied to social relations. This new movement, as we wish to term it, was advocated by Herder two centuries ago when he said:

> How does it aid a youth if he merely knows what has happened and cannot locate events? Only through the aid of geography will it become clear to him why certain people had to play a rôle upon the historic stage and could play no other; why sciences, inventions, and arts — indeed, the whole civilization — took the course it has taken and no other. Geography is the basis of history and history is nothing but the geography of times and nations set in motion.

John Smith, in his history of Virginia, published in 1623, says:

> For as geography without history seemeth a carkasse without motion, so history without geography wandereth as a vagrant without certain habitation. He who studies the one without the other will undersand neither. Who despises both should live like the mole under the earth.

No historian of today would dare to claim a supreme indifference to geography. Man cannot go entirely beyond his physical environment, either biologically or socially. The effect of climate on the physical, mental, and moral condition of individuals is everywhere admitted, and the influence of topography and native products upon humanity can not be denied. Although geography has had a great influence upon human development, it furnishes only one part of the interesting story. It is true that the great fertile flood plain of the Nile, surrounded by a nearly impassable barrier, the desert, made Egypt's civilization one of the greatest which has blessed the face of the earth, but its decadence can hardly be attributed to geography. The abundance of marble, we now recognize, gave plastic art to Greece; and the geologic fault which made Wolf's cove possible changed the history of North America. Almost every social custom has a geographic basis.

With the increase of knowledge in these various directions has come the difficulty of selecting a course of study. It is impossible now for any individual to encompass the known geography of the world. Hence what not to teach is as important as what to teach. We cannot select a certain number of facts and say these facts are important, hence should be learned, because the important facts vary with every locality and, we may say, with every division of time. It may be that Hawaii seems important because of her present relation to us, but the world is gradually becoming so closely connected that it is impossible to decide who is our neighbor.

It is true that if we would be one with society, we must constantly feel the pulse-beat of social life. And the great industrial movement which is now sweeping everything before it, bringing science, art, literature, oratory, and the bayonet to its aid, cannot and should not be ignored; but it should not be given first place in our consideration. So great is the power of this movement that it can turn the heads of the wise and good, as I had evidence in India. I heard a man who is said to be one of the most learned and wisest of Anglo-Indians argue eloquently and feelingly in favor of the opium trade in India. He had lived in that country fourteen years, traveling yearly from one end of the country to the other, collecting material for a great museum of which he is director; yet he believes opium is of great value to the country. The glaring light of commercialism has blinded his ethical sight.

Since knowledge *per se* cannot be made the guide to the selection of a course of study, we must seek for it elsewhere. It is in the principles which govern the formation of the landscapes, and those which determine the distribution of peoples, their habits and customs, that we find relief. These, if properly mastered, become the keys which unlock the abstruse geography problems. The ability to interpret landscapes, to see their relation to cultural conditions, to use geographic symbols properly — pictures, models, charts, and literature — must in this day constitute the equipment of the geographer.

A course of study intended for an entire city or country can only designate the very broadest lines of study. For it is just as impossible for the suburban schools to use the same course of study, as the schools in the congested districts of the same city, as it is for the children of Jamaica to study the English botanies, which they have attempted with failure.

It is impossible to realize our ideals in teaching so long as the "factory system" obtains in our schools. No teacher can turn out forty pieces of humanity yearly, each bearing the same stamp, and not do violence to her better self.

Much of the departmental work is only "piece work"; it is not related to the life of the child. We need more handmade, hand-modeled educational results; less recitation ot pedagogic platitudes and more execution; more time spent in teaching the child and less in teaching the subject. Then the child will grow into an appreciation of the harmonies of nature, man, and natural law.

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THE HUMAN RESPONSE TO THE PHYSICAL ENVIRONMENT.[1]

We think of man as living in an environment, the elements of which are largely the subject-matter of physical geography; and we are coming to realize that the true and complete geography is a study, not of physiography and the climate merely, but of the interaction between man and the physical part of his environment.

The term "environment" is so loosely used, and is made to include so much, that we must do some careful defining, to be sure of our ground, before taking up a discussion of our subject. The general conception of environment is the *not-me* which acts and reacts upon me. But this whole universe of forces and influences outside of myself is made up in part of the material world and its forces, and in part of the spiritual world and its creations, which are quite as vital in determining my career as are many of the material considerations.

So our environment is to be analyzed in a dual way, as (1) physical, and (2) social, or sociological, as Herbert Spencer had it. Over a century ago Montesquieu, in his *Spirit of the Laws,* was fairly convinced of this analysis, and wrote so clearly and with such conviction as to the influence of the physical elements in our environment as to make himself one of the greatest contributors along this line, though he wrote before there was a science of geology, or physiography, or meteorology to furnish data or establish laws. And again about fifty years later Buckle, in his *History of Civilization,* made a wonderful statement of the significance of the purely physical elements in our social evolution, so good a presentation as to have been scarcely equaled since. And even in his time the modern science of geology was scarcely out of its swaddling-clothes, and the sciences of meteorology and geography were not yet born.

Now that the tributary fields have been well worked, observations by millions made and recorded, and laws enunciated, we are able to arrive at a more complete and satisfactory analysis of our environment and make ourselves ready to recognize the effect of the fundamental physical elements.

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[1] Read before the Central Association of Science and Mathematics Teachers, Chicago, November 27, 1903.

Let me take up each of the phases of our environment and see its content and its bearing.

The *physical environment* has as its elements:

1. Climatic conditions — as hot or cold, arid or humid.
2. Land relief, or topography.
   a) Barriers — as mountain, or desert, or water.
   b) Character of surface — whether flat plain, or dissected plateau, or mountainous.
3. Soil — of increasing significance as time goes by.
4. Materials and forces available in a given region.
   a) Inorganic — as metals and minerals.
   b) Organic — plant and animal resources.
5. Competitors in the realm — whether human or by the lower animals.

The *social environment* has for its sources and influences:

1. Psychic elements.
   The consciousness of kind (Giddings) giving rise to sympathy and co-operation in every stage of evolution from the lowest animal to the highest conventions of modern society.
   The law of imitation (Tarde) is quite as sweeping in its application.
2. Economic relations.
   The pursuit of wealth the keynote of social impulse — Karl Marx, and later exploited by Dr. Patten. Herbert Spencer works along the same lines in his interpretation of our society as a progress from militarism to industrialism.

Progress under these influences is at first unconscious — as truly cosmic as the adaptation of a plant to a new environment. And in all our social organization, even in the highest phases, the purely cosmic, or unconscious, response to the forces in the environment is effective in larger measure than most people would willingly admit. We have but to look about us, and see the measure of heedless unthought with which we have exterminated certain noble animal species, as the bison and the seal; or see the ravenous haste with which we have wasted a continent's resource of forest, and the utterly reckless way in which we are ravishing the stored sunshine of past ages in our coal resource, to see that in very large measure we are as senseless and unconscious as the beasts of the field.

But though at first our evolution has been unconscious, and wholly the result of a chance geographic environment, sooner or later evolution becomes conscious and self-directed, and our noblest ideal for society is that it should become so in constantly larger measure. Lester F. Ward in his *Dynamic Sociology,* F. H. Giddings in his *Principles of Sociology,* and Benjamin Kidd in his *Social Evolution* all make much of this idea.

All these elements of environment express themselves in social institutions and conventions, which analyze themselves into a half-score of categories:

1. The organization of the family and the status of woman.
2. The idea of ownership in property.
3. Domestication of animals.
4. Agriculture.
5. Dress and adornment.
6. Shelter — leading to styles of architecture.
7. The use of metals.
8. The industrial arts — as in pottery, basketry, weaving, and the long list of mechanical inventions.
9. Forms of government — as military and industrial or economic.
10. Social forms and customs; beliefs, as superstitions, religions.

All these social conventions are in a large measure psychic, but all are secondary, or even tertiary. They are developed *after* they are initiated. All analyses of them come back to *initiation.* And the least analysis arrives at a purely psychological reaction — a nervous response to an external stimulus; that is, to living tissue, acting on a physical environment. And so conditions favoring or inhibiting origins in all these lines are found in the "deal" (borrowing a term from whist) of the elements in the physical environment. The game that may be played, whether aggressive and brilliant, or passive and inert, depends very largely upon the cards held. And in the distribution of the elements of the physical environment, and the emphasis laid on each, every realm and age deals out a different combination.

The origins of social institutions, just as truly as the origins of changes in the living body of the plant or animal, are found in the conditions imposed by the physical environment, and *progress depends upon a surplus.* This thought is most significant and far-reaching, and has been excellently presented by Dr. Simon N. Patten in his latest work, *Heredity and Social Progress.* The principle of the surplus must be kept in mind at every step in an analysis of the influence of the physical environment. It is operative in the most primal phase of living tissue, and it applies at every stage in evolution up to the highest and most spiritual social institution. It will not be out of place to state briefly some of its principles:

1. A surplus of tissue in the cell gives opportunity for the occupation of more space. Hence a breaking up into multicellular structure and the differentiation of outer from inner tissue, and by an extension along this line of development, giving rise, in due time, to organs.

2. In the same way a surplus of energy in the individual man gives us the genius in one phase of development, and the liberal and iconoclast in another.

3. A surplus of energy in a social class impels to conquest, giving added power and leisure to the conqueror, making culture possible.[2]

I may add that a surplus of wants go hand in hand with a surplus of wealth and leisure, to make progress continuous. Contentment is a mild name for decay. A protestant is a man with a conviction, plus a good backbone, and a stiff upper lip. For such a man laws are made — to be broken. Initiative comes from such men, and progress consists often in getting out of the rut.

The physical environment, then, is important in giving the conditions for initiative, and in furnishing the opportunity for a surplus; hence making for or against progress.

The highest point of view in geography is this very study of the physical environment in its influence on man's development, as furnishing the conditions in response to which changes may or must occur, (1) in the physical organism of man, and (2) in his social organization.

But changes in man's body are almost immeasurably slow.

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[2] See VEBLEN, *Theory of the Leisure Class.*

Notwithstanding the fact that our anthropoid ancestors began to abandon quadrupedal locomotion, it may be, over four million years ago, we are not yet wholly adapted in our bodies to an upright posture, as Brinton and others have shown. And the anatomists and physiologists enumerate 127 vestigial organs in our bodies—organs which are more or less useless now, but which functioned once, some of them dating back to an ancestor far less advanced than the *Pithecanthropus erectus* of Du Bois. We are familiar in our everyday life with many of these relics, such as the nictitating membrane of the eye and the vermiform appendix. It seems, as David Starr Jordan so wittily remarks, that the human body can never quite forget its past, but must carry around in itself perpetually the record of every stage in its physical evolution.

Our bodily response to the physical environment, then, is in many ways almost immeasurably slow. We may not yet name definitely the combinations in physical environment which give us color of skin, head form, peculiarities of hair structure, or cast of features. Yet we may definitely say what conditions stunt the stature and inhibit action. The intelligent farmer or breeder is well assured of the principles along these lines, and the giant Norman Percheron horses are the demonstration of the law of surplus in the physical environment; and just as truly the stunted pony of Shetland and the cayuse of Montana answer for the lack of surplus. Professor Ripley, in his *Racial Geography of Europe,* makes a beautiful application of these principles in the discussion of the influences of the thin soil and the hard conditions in the Auvergne. The response is found direct in the stunted, backward population, the miserable relic of a people pushed to the wall, in ages past, by more powerful tribes that came and evicted them from the rich and favored lower lands. And, again, that hard conditions dwarf stature may be shown in the study of the Jews. Downtrodden, persecuted, and narrowed in opportunities all over Europe, they have found in free and enlightened England an opportunity to take advantage of a surplus; and in the rich end of London, in the few generations they have been there, their average stature has been increased over an inch and a half.

Edwin Markham's biting poem on "The Man with the Hoe" focuses our attention on the power of hard conditions to stunt and warp both body and mind.

Now, while the rate of change in man's body is for the most part so slow that, under the merely cosmic response to the physical environment, we must look for results to the effect of hundreds or thousands of years of its influence, on the other hand, changes in man's social organization are taking place under our very eyes. And though some of the social institutions are of as slow growth as many of the changes in man's body, yet the conditions of social organization are often found vitally fixed in the *ensemble* of the elements of the physical environment of a particular region. A people moving from a given region in which a good measure of adaptation to the physical environment has been attained may find itself under the necessity of changing radically many of the social conventions to which it was accustomed, in order to survive. Of this we have record in almost numberless cases where frontiers have been passed by members of an old and static social order.

Such social adjustments, then, are relatively rapid, and there tends to be established a somewhat definite social order in a given type of geographic realm, which imposes itself upon almost any human stock which comes to occupy the region. Out of a dozen such type geographic regions which might be studied, let us choose one, and run rapidly over it, indicating briefly, as we may, the ways in which the physical environment reacts upon man, to limit, direct, and give character to his social status. In such a study of a type region the problem is to see how the elements of the physical environment determine social origins and shape their development. Let us take as a type region the arid area, and show the persistence of its influence in all the phases of social organization.

THE ARID AREA.

1. *The family and the status of woman.*—An arid plain in primitive society invites the chase. The animals of the realm are, in the first instance, of necessity herbivores. The scant grass and browse of such a plain calls for nimble deer, fleet of

foot and ranging widely. To follow such a food supply, the family of the hunter must be ready to move rapidly and on short notice. This need reduces the family to its lowest terms — father, mother, child — and makes nomads of them of necessity. This life makes man the bread-winner, and woman becomes a slave and chattel. Among the Amerind we have this shown in the Sioux, Apache, and other tribes of the great plains.

In such a region, if the animals are of such a nature as to be more useful living than dead, we come naturally to —

2. *The domestication of animals.*— With flocks and herds the food supply is less precarious, and the capacity of the region is greater. The family unit becomes larger. Sons and grandsons may stay in the family group. This provides a larger measure of social culture; but the family is still under the whip of uncertain forage and of migrations to pastures new. So social relations remain the same. We have the patriarch, and women are still inferior.

3. *Agriculture.*— With game scarce, the food supply is sought in plant life, and progress goes hand in hand with a domestication of plants. This locates the family along a river where water makes agriculture possible. In such a case women are, as a rule, the leaders, and become bread-winners equally with the men, or even superior to them. This means independence and power, and sooner or later social equality. With animals domesticated for draft, and milk as well, or meat, the food supply is made immensely more ample and more secure, and the home becomes static. The population becomes denser, and social customs, laws, and regulations become necessary. Here is the give-and-take of man to man which rubs off rough corners and brings in time refinement and culture. In America the Pueblo Indians illustrate these influences. In Egypt, Assyria, India, and China the earliest steps in civilization passed through these phases of development ages ago.

4. *The idea of ownership of property.*— On the arid plain individual property in *land* is unknown. It is so the world around. The ownership in the Russian steppe region, and many other similar regions in Asia, resides in the village, or the com-

munity. Our plains tribes have the very greatest difficulty in acquiring a notion of ownership in the land. It is as foreign to them as the ownership of air or sunshine to us. But where soil was from the start the source of bread, land is owned, and the thought is easy. It is well known that the private ownership of land is one of the foundation stones of our particular phase of civilization.

5. *Dress and personal adornment.*— The sub-arid plain and the pursuit of the deer restrict the material of dress almost wholly to skins. This is in itself a strong demand for simplicity of dress, and holds the dress ideal rather strictly to the law of utility. With the advent of a pastoral life, particularly with the possession of sheep, goats, or camels, the availability of wool invites weaving, thus adding extensively to the variety and quality of the materials for dress. This is in itself a large invitation for advance in the arts of civilization. When agriculture comes in such a region, plant fibers increase the variety and the invitation for development. If the region is cold, at least for a good part of the year, this is a condition which holds an iron hand on the character of dress, and does not permit a wide departure from the fundamental law of utility. The trousers and the close-fitting garment owe their origin to such a physical condition. If the region is hot much of the year, the *need* of clothing is by so much reduced, and the institution of dress is more largely based on the purpose of adornment. The flowing robe, the skirt, and the shawl have their origin here.

In our western civilization we have inherited from both these sources. The conservative and leisure classes retain the display garments, and the workers keep style in dress much more close to the needs of the case. The court, the church, and female society still carry the garb of leisure and of low-latitude arid lands, even into geographic environments where the retention of the style is a serious handicap and the occasion of much suffering. Here is a case of maladjustment to physical environment that flaunts itself in the face of the law of the survival of the fittest — a case where a social surplus is frittered away in useless friction with the physical environment, and energy is lost which might, if applied wisely, lift society and further civilization.

6. *Shelter — architecture.*— The need of rapid transit in following the deer reacts strongly upon the size and quality of the residence. Necessity requires a small shelter, and of light material, which can be quickly taken down and moved, and as quickly set up as need arises. The materials convenient for such purposes are poles and skins. So the tepee is a perfectly natural response to the conditions. All our tribes on the great plains had made almost a perfect adjustment along these lines when Europeans came. In the pastoral phase, woven stuff adds to variety of building materials, hence of the capacity of the abode, and so invites progress. The Tatar and Kurd have solved this problem.

When agriculture is established, the need for moving the abode does not arise. The dwelling becomes static, and so may be made of a larger variety of materials. The size is not limited nor the weight, so wood may enter more largely into construction, and as in arid lands even wood may not be plenty, sods or stones or baked clay become the building materials. So a massive construction is established because of the nature of the most convenient materials. The sun's heat is the discomfort most necessary to counteract; hence the walls grow thick. There is little rain to be shed; so the roofs become flat, and a type of architecture is evolved. The Pueblos show as a primitive phase, the Egyptians a well-differentiated style, and the Greeks a style which is perfection. But each one of them carries in every lineament the record of a climatic condition of origin. Contrast these styles of architecture of the arid lands with the Gothic, which is an evolution of the tepee adapted to a humid clime.

7. *Use of metals.*— The presence or absence of metals in a realm has a powerful bearing on the social and economic possibilities of a people. The race very probably came to the use of the metals through finding native copper. There was a copper age, which grew gradually into a bronze age; and much later, with the accumulation of wisdom in metallurgy, iron came into use. But no people could come into the use of metal without having the metals to call on. They could have developed never so wisely in all lines, but without copper or iron they would have

so serious a handicap as to make a high grade of culture out of the question. There are many coral isles in the Pacific with quite as high a culture as we could ask without the possession of the metals. Even after a high civilization is established the presence of coal and iron confers so powerful an advantage as to make their possessors great, willy nilly. Our Pueblos had the handicap of having no metals—a very serious bar against progress.

8. *Industrial arts and mechanical invention.*— Here again we are forced to see that the nature of the materials at hand shapes the possibilities in the way of progress in the long list of inventions. The origin of pottery seems closely connected with a life in arid conditions. Water is a prime necessity. It must be kept on hand. The skins of animals are convenient, but they are short-lived, and there are other obvious disadvantages. A basket lined with clay will hold water, and such a dish burned is pottery. In any case, the inventions which may be made depend upon the particular combination of the elements of the physical environment. The savage in England would make his bow of a single piece of yew. The Eskimo, lacking yew, must use his wit, and get a compound bow of bone and sinew—a work of high art.

9. *Forms of government.*—The form of government grows out of the family organization and the way in which the daily bread is won. On the arid plain the strong hunter or the powerful warrior is chief. The whole life is one of the chase and the conquest of a weaker foe. It is not a long step from the hunting of the buffalo to the hunting of an enemy in the adjoining tribe. The arid realm breeds warriors and robbers — and might is right. In a pastoral society the family *is* the state, in origin, and the father is the head of the government. Conditions are only slightly changed. Women are slaves and inferiors, and any evolution in government from such a foundation will end in the establishment of a hierarchy of rank, with the strongest in the highest places. It is not different in any way from the rule of the barnyard among horned cattle. It is not a question of wisdom or right, but a question of brawn. Such a basis leads to the establishment of aristocracy, which, long planted and gone to

seed, gives us the caste system in India. The culmination of all such government is the absolute monarchy, which is, in every instance, in last analysis, a military despotism.

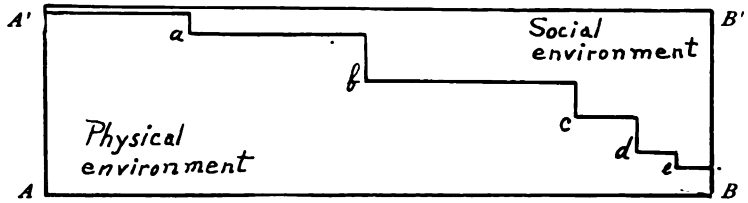
Agriculture and the industrial arts tend to equality among workers, male and female. The tendency is to make the wise man the leader. The whole trend of such a foundation is toward democracy. Our western civilization is in constant swing between these two great tendencies, the one of which we inherit from the arid orient, the other from the agricultural lands of western Europe. And again, the Pueblos show us a primitive form of government, with the agricultural influence uppermost.

10. *Religion — social customs.*— The military organization dominates in religious establishment. In a military society the religious ideals are cast in the same mold. There is the same hierarchy, and every individual is given his station, with emphasis on obedience to the higher power. The supreme deity is the great war leader — the God of Hosts. We borrow this phase of our religion from the arid plains of the Orient. Even our hell and heaven are creations from the experiences born of a life in the hot desert and the delightful oasis.

But the practice of agriculture focuses the attention, not on a mighty conqueror, but upon the clouds. The crops depend upon the sun and the rain, and life and happiness depend upon the crops. Interest is focused on the return of the sun and the coming of the rain or the flood. This builds up a very different religion, which looks for the powers above us, in the sun and in the sky, and leads easily to the conception of the unknown god who rules the winds and brings the rains, and who lives in the sky. And these are elements found in the religion of every agricultural people settled in arid lands: Pueblo, Inca, Persian, Arabian, Hebrew.

RÉSUMÉ.

Human development, physical and social, is, at the start, unconscious, a direct response to the conditions of the physical environment — a cosmic process. But the psychic, social element enters, and the experience of the race is gradually capitalized in the form of social institutions and conventions. These become forces competent to shape further progress, but they are clearly secondary, depending for initiation and for direction upon the conditions of the physical environment. Progress in social evolution is a record of a changing ratio between the influence of the physical environment and this growing social environment. This changing ratio shows a growing independence of the physical environment on the part of man, even a domination over it. It may be represented graphically by a parallelogram, the length of which, *AB,* stands for the lapse of ages occupied by human evolution, and this may be four or five million years, if we may dare try to convert geological ages to years. The vertical ordinates *AA′*, *BB′*, represent in the terminal epochs the sum total of the forces in our environment, both physical and social, and may be most easily thought of in percentage, up to 100, at the top line. With the *Homo alalus* the social environment was at a minimum, almost zero; the physical environment essentially 100 per cent. On the invention of language (*a*) a sudden access of social power makes a large conquest over the physical control. With the discovery of fire (*b*) another conquest over nature changes the ratio, reducing the control of the physical environment. Agriculture (*c*), domestication of beasts of burden (*d*), and every useful discovery or invention, mechanical or social, have changed the ratio, giving us added dominion over the elements of our physical environment. But we can never reduce this environment to zero. Be we never so wise and ingenious, we shall always be directed, and the course of our evolution will be conditioned by its elements. These forces may be unseen, but they are nevertheless potent, and they are eternal.



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ASTRO-GEOGRAPHY IN THE GRADES.

THE writer of this paper is prepared to hear the reader promptly object to its high-sounding caption. Astro-geography to be seriously considered as a subject for study in the grades! Then he imagines he hears the mental shock relieved with the remark: "Well, I suppose he wanted to write an article for a magazine, and he must have a novel title at least."

But let us pursue the matter a little farther. Is the title so malapropos as it seems on first thought? The reader will hardly deny us the favor of reading far enough into our paper to find out at least what is meant by its title. What meaning can there be in the phrase "Astro-geography in the grades"?

Let me begin the answer to this question in the good old Yankee fashion of asking another. What is the meaning of "geography in the grades"? Are we seeking to secure only the informational value to the pupil of a body of more or less disjointed facts for his possible future use as a guide in travel, in raising crops, or in judging whether when he starts on a walk he would better take his umbrella along? Or should the geography teacher rather be seeking to establish points of contact between the life of the pupil and the laws of such natural phenomena as hem him in and are capable of being set into orderly array by him? Have we gone so far in our pedagogical rage to harmonize the successive appearance of the mental faculties with the several grades of our artificial school system as to deny to the student below the age of ten the possession of rational faculties even in a weak degree? If so, the sooner we stop theorizing and look at the child, the better for our pedagogy. Some would have us believe that it is not until after the much-talked-of adolescent period that the student really begins his rational existence. This paper proceeds upon the view that a pedagogy based upon the study of segments of child-life made between *transverse* sections is a poor pedagogy. It assumes the gradual growth and decay of the mental powers in the individual from the first day of existence to the last. In other words, it is held that, if we must treat the life of the learner by sections, the *longitudinal* section reveals a truer state of things for the teacher.

Too much is often made of observation as an end in itself. Evidence has long been sufficiently plentiful that the training of the observing faculties is impossible without due regard to the necessity of interpreting the meaning of the observations. Most of us fall short, not in failing to observe, but in failing to observe intelligently. Observations uninterpreted are always blind and pointless. It is no less true of children than of adults that observation, to be educative, must be rational. The emphasis of this paper is, accordingly, that especial attention be given to having the children draw their own inferences from their observations. The sort of work called for below will be valuable only in the degree in which it trains pupils both to observe and to reason on their observations.

To give the pupil the proper foundation of ideas on which to erect his edifice of geographical knowledge, it is necessary that he be led very early to grapple with some pretty broad conceptions. His home region is, of course, his starting-point, and only his starting-point, in the formation of his conceptions. To confine his geographical knowledge too long to his direct experiences in his home region is to shorten his perspective and to render difficult his conception of the earth as a whole. He must very soon leave the local environment and launch out upon the broad expanse of the vastly greater part of the earth's surface which he can never expect to see directly, but which his local experiences enable him to see with "his mind's eye." In other words, the conception of the earth as a whole, and even the more difficult conception of the earth as a member of the planetary system, should be introduced very early into the study of elementary geography. The gradual transition from local and necessarily short-sighted notions of the appearances of near objects on the earth can be easily made by directing the pupil's observation to the appearances of remote objects and of the landscape from sky-line to sky-line, and thence to the appearance of the moon and of the sun. The interpretation of these appearances must needs be assisted by the aid of globes illuminated under various conditions in the schoolroom. No better work can be done by a very elementary geography class than to spend enough time observing the appearance of the moon and its position from evening to evening among the stars, to trace the obvious changes through an entire lunation. Crude sketches of the phases, and light and dark shadings, of the lunar face, including two or three of the brighter neighboring stars, can be made by very young pupils with very little assistance, by merely directing their attention successively to the desired features. The writer has seen a group of ten-year-olds enthusiastically engaged in such work on the moon, and in similar work on Venus, from evening to evening, during the summer months for two weeks. They were veritable little astronomers, investigating at first-hand phenomena which would have made many an adult scientist blush for his lack of interest and intelligence in such matters. One could easily imagine the exultance of spirit with which they seized upon the discoveries brought out by the comparison of their crude little working sketches from night to night, as not unlike that "divine intoxication" with which the great astronomers of the past have trembled as they approached the sacred presence of new discoveries. Who that has seen the enthusiasm of these embryo scientists can doubt the educational genuineness of the effort thus put forth? The difficulty in doing such work in the schools is either imaginary or is due to the mental passivity into which teachers have trained themselves by long-continued ignoring of the great truths which lie under their immediate ken. The freshness of spirit and open-mindedness to truth of the boys and girls who have not yet learned how to conceal or stifle their enthusiasm at the first-hand discovery of new truth will be both a revelation and in some instances a mortification to grown-up folk.

By the aid of a couple of sticks and the law of simple proportion — which law may be better taught in this way than is done in the texts — the pupil may measure for himself the actual diameter of the moon, if the teacher will give him its distance. For a simple form of solution of this problem the teacher is referred to the *Rational Grammar School Arithmetic*. (Problem

17, p. 199.) When the pupil has found from his own measures that the diameter of the moon is over two thousand miles, that it looks round, and is visibly spotted with light and dark shadings, it is much easier for him to form an adequate conception of an earth eight thousand miles in diameter, spotted over with seas and continents. An opera glass will aid materially in impressing the student with the roundness of the lunar globe and with the spottedness of its surface.

Again, after the pupil has followed from evening to evening, or at intervals of only a few evenings, the slow eastward creeping of the moon among the stars, pretty well through a complete lunation, he will have picked up many ideas incidentally which will later be most valuable to him in his work in geography and in nature study, and which will afford him a source of genuine pleasure all his life. He will, if the cause of the observed changes of phase is cleared up for him by the aid of an illuminated globe and an artificial sun, never fall into the popular confusion as to whether the horns of the moon should point from or toward the sun, as to whether the new moon rises in the east or in the west, and as to the meaning of "the old moon in the new moon's arms." If such study is followed at intervals throughout a year, the pupil will learn much about the path of the moon through the stars; will become impressed with the reality of the movements of heavenly bodies—among them the earth; will learn something about the constellations; and under an intelligent teacher may learn to recognize for himself the principal planets both by their appearance and by their visible movements, and may fix in mind the slow westward drift, with the seasons, of the rising constellations. This much observational work on the moon is both feasible and immensely important for pupils from Grades IV to VIII. The only practical difficulty is in getting teachers who feel its importance sufficiently to keep it up systematically without overworking it at any point along the specified interval.

It will at once be objected, even by those who admit the importance of this work, that pupils cannot be gotten to do the observing; that classes of pupils of this age cannot be brought together under the open evening sky with their teachers; and that the observational work without the teacher would be little better than worthless. These are the staple objections that one always hears. They are nevertheless not valid, even if they have become classical among elementary teachers. Ten or fifteen minutes is enough time for the pupil to give to this observational work for one evening. The more the pupil does without assistance the better. A line or two from the teacher to the parents, directing them as to what observation is wanted, will in most cases secure all the co-operation the teacher needs. The kind of observation, however, which is most valuable, and in which the student should be trained, is independent observation. Very much assistance from the parents is positively harmful. The pupil will bring his notebook to the class the next day, and his work will be gone over with the same care and consideration as should be bestowed on any of the other assigned work.

Nor is this work new. It is, however, not done so extensively as it ought to be. The testimony of those who have tried it is to the effect that the teacher's idea that it is difficult to teach it, as also the pupil's feeling that the observing is difficult, are entirely dissipated by the first attempts at doing it. Miss Eliza A. Bowen, a pioneer and hearty advocate of the sort of observational work here recommended, has prepared an excellent text for the guidance of high-school classes in such work as this. No better idea of the *spirit* of such work can be given than by recommending all interested to study Miss Bowen's text, *Astronomy by Observation*. For grade classes, of course, the plans of this book must be greatly simplified: but this will offer no special difficulty. The four large maps given in Miss Bowen's book, and her suggestion that constellations be always identified by certain geometrical or other familiar forms, suggested by groupings of a few bright stars within the constellation, are directly pertinent to grade work. The following outline will suggest the subject-matter which can and should be studied by direct observation by pupils from Grades IV or V to VIII.

A few nights (four or five) during fortnightly periods should be spent in making notebook records of observational studies and in discussions upon them of the objects given under each of the following heads. The teacher will be greatly guided by Miss Bowen's text, published by the American Book Co., which contains the greatest amount of usable material of any elementary book yet in print. Upton's *Star Atlas* will also be found serviceable. It must be remembered that the object of the work is to teach pupils both to observe and to think. One or two constellations an evening is sufficient.

1. Fundamental constellations: (*a*) the Great Bear (large dipper); (*b*) the Lesser Bear (Polaris); (*c*) Queen Cassiopeia's Chair; (*d*) the Lyre (Vega); (*e*) the Northern Crown (Arcturus).
2. The zodiacal constellations of September: (*a*) the Virgin (Spica); (*b*) the Scales; (*c*) the Scorpion (Antares); (*d*) the Archer (little dipper); (*e*) the Goat; (*f*) the Fishes.
3. The Milky Way or Galaxy and solstice: (*a*) its position and place; (*b*) its form; (*c*) its brightness; (*d*) location among stars of winter solstice.
4. The zodiacal constellations of November: (*a*) the Fishes; (*b*) the Ram; (*c*) the Bull; (*d*) the Twins (Castor and Pollux).
5. Other constellations and objects of November sky: (*a*) the great square in Pegasus; (*b*) Andromid and Orion nebulæ; (*c*) visible planets; (*d*) moon; (*e*) location among stars of the vernal equinox.
6. Zodiacal and other constellations of February sky: (*a*) the Goat; (*b*) the Water-Bearer; (*c*) the Fishes; (*d*) the Ram; (*e*) the Bull; (*f*) the Twins; (*g*) the Lion (Regulus).
7. The Galaxy and its principal constellations.
8. The constellations of the April sky.

It is impossible to fix a program rigidly for work upon the planets. They must be "taken as they come." But, leaving the work informal, the following facts may easily be gotten at by a little patience and perseverance:

1. Their difference in appearance from the stars.
2. Their brightness as compared with neighboring bright stars.
3. Their differences of color.
4. Their positions with reference to bright stars, estimated and recorded in direction (north — toward Polaris) and in terms of the distance (5°) between "the pointers."
5. Their paths mapped on small globes suitably provided with parallels of latitude and meridians of longitude.
6. Their movements with respect to the sun.
7. Their appearances in an opera glass described and read up in a simple text (Holden's *Astronomy*).
8. Comparative study of the earth as one of the planets; changes observed on the sky caused by earth's diurnal and annual motions being pointed out.

9. Relations of a planet and sun studied with an illuminated model.
10. Study of pictures of planets with lantern where possible.

Much is made nowadays of fairy-stories and classical myths in the elementary schools. Some of the finest mythology ever produced centers around the constellations. Literary references to these myths are frequent. Often have they been made "to point a moral or adorn a tale." Why not make much more of these myths with the very early grades than we do? In addition to their intrinsic beauty, these classical myths have a historical value and will become a permanently useful possession to the children. Let us make more of them!

In the later grades the observational work should become more distinctively *quantitative* in character. Such measurements as are set forth in the pamphlet given at the head of the list of references below may be used to correlate with the grade geometry. Work on the sun such as is outlined in Jackman's *Number Work in Nature Study* should also be made a feature of the seventh- and eighth-grade work.

The list of references here added will serve to put the reader in touch with what has been and is being done along the lines here outlined:

REFERENCE BOOKS.

1. G. W. Myers, *Elementary Experiments in Observational Astronomy.* Chicago: School Science Press.
2. W. S. Jackman, *Number Work in Nature Study.* Chicago: Flanagan
3. Mary Proctor, *Stories of Starland.* Potter & Putnam Co.
4. R. S. Ball, *Starland.* Ginn & Co.
5. E. S. Holden, *The Family of the Sun.* D. Appleton.
6. Parker, *Familiar Talks on Astronomy.* A. C. McClurg & Co.
7. Young, *Uranography.* Ginn & Co.
8. Young, *Lessons in Astronomy.* Ginn & Co.
9. Eliza A. Bowen, *Astronomy by Observation.* American Book Co.
10. Gregory, *The Planet Earth.* Macmillan & Co.
11. Durham, *Astronomy, Sun, Moon and Stars.* Adam & Charles Block.
12. Winslow Upton, *Stars Atlas.* Ginn & Co.
13. E. P. Jackson, *Astronomical Geography.* D. C. Heath & Co.
14. E. R. E. Cowell, *Curiosities of Latitude and Longitude.* Chicago: Thos. Charles & Co.

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ASTRO-GEOGRAPHY FOR CHILDREN.

WHILE the members of a class were discussing plans for a year's work on the history of Chicago, the children brought out the reason for the original settlement of the city at the mouth of the river on the lake. After talking over the river as the open way to the fur trader's country and the character of the surrounding region, a small boy of eight very seriously propounded the following problem, over which he had evidently spent much thought: "Which do you think," said he, "is the best way to study geography—to begin with your own place and go out, out, out, until you reach the stars, or to begin with the stars and come in and in until you reach your own place again?" Upon being told that people differ as to the wisdom of either course, and reminded that during the previous year he had studied about people who lived in very different parts of the earth, and was now to study about his own locality, he accepted the answer, satisfied to begin at home; but, while settling back contentedly, murmured: "But I shall get a book about the stars, anyway."

This story may indicate an unusual state of mind in an eight-year-old child, but, contrary to opinion, children between eight and nine take such universal views much oftener than they are given credit for so doing. The title "astro-geography" has but little meaning save as an occasionally convenient division in science for the teacher's grouping of work to be done with children under twelve.

Many of the fundamental conceptions of this same "astro-geography" kept in the teacher's mind may help in forming in the child's mind a background of feeling and interest, out of which will develop these same conceptions later on in his life, though at the time they may seem as far off from the work that he is actually carrying on as the boy's story about the stars was from Chicago geography.

The city child has so much of people, so many activities, that his naïve attitude of wonder and delight in the heavenly bodies

dies still-born, unless the organization that school and home can effect give him chance for development of that genuine interest in the marvels of the countless stars and immense distances of space which only the leisure of early youth can afford.

In the child's mind is still inherent that plasticity which makes possible the use of material that seems to the ordinary adult mind abstract, too remote to be suggestive.

A child aged eight or ten has no fear of any subject, no habit of regarding one problem as more difficult than another, because of association. Points in astro-geography, as in physiography, which take an hour's work with college students will be worked out by children in fifteen minutes. It is especially in this topic with older students that we find it more difficult to overcome the paralyzing feeling that the subject is abstruse, than to solve the real problem. The average teacher will grant that a child can use angular measure in making a clock face, when this same teacher might hesitate to go on and apply the method in getting the altitude of a star, or in attacking the subject of latitude or longitude.

With very young children. when occasion arises for their noting marked changes of length of day and night, and of season, by reference to the causes of these changes, made in a story form, the teacher can keep the ideas plastic and open to the larger universal element, although he may be occupied at the time with small results of the same changes, such as autumn fruits, the winter ice and snow, planting of his garden, or the return of the birds in the spring.

Seven-year-old children begin to ask definitely for the story of the earth; and here again, in connection with something they are carrying on — their gardening, or any other occupation — can be introduced the same story of the seasons, the explanation of the moon's phases, why only the north star seems stationary, and stories to identify others of the guiding stars of the heavens. By the use of globes and strong light, a real appreciation of the reason for the changing phases of the moon which the child sees each month may be easily attained, as well as the periodic recurrence of the eclipses; although, of course, the working out in detail of the definite position of the moon with relation to the sun and earth, which results in the different phases, might better be left until two or three years later. It has been found that the child will learn to look for the full moon rising in the east, as the sun disappears in the west, and associate that eastern position with its relation to the sun. In a graduate class in the University a professor of Greek was astonished to find that only one in his class knew where the full moon rose. This one student afterward confessed the only reason for her knowledge was that she had heard an explanation made on that day to a seven-year-old boy at home. So much of the history of past peoples and their literature is bound up with the sun, moon, stars, and the wonder of the nightly heavens, that one would question an education which, recognizing that city life now has no actual need, such as existed of old, for such knowledge, would ignore the fact that this experience must come to the child through the co-operation of the school and the home.

The equinoxes, the shortest and the longest day, are occasions to be utilized year after year to bring about a growing definiteness of idea in the child's mind of the earth's position in the solar system. The events which effectively seize on the child's imagination are the meteoric showers, the press-heralded comet, the nebulæ, and the riddle of the double star.

The amount that can be done with such topics as geographical position upon the earth, as determined by time and the altitude of the stars and sun, thus giving latitude and longitude a *raison d'être,* depends upon the background the children already possess from their previous experiences. As an illustration of what can be done when the child, through his imagination, realizes the need for a means of determining geographical position, and actually constructs a primitive method of determining the same, the following report may be of value:

The children of nine or ten who carried through this work were getting some idea of that enlargement of the known world which took place after the discovery of America, just before the beginning of the colonization period. They had had the voyages of Hawkins and Drake as introductory to the settlement of Virginia. Through the voyages of these navigators they had gained some appreciation of the necessity for a means of locating the position of newly discovered lands, as well as the need of the navigator to keep his bearings. Starting from their own sailing experiences, it was found that they had a vivid idea of sailing by points on the coast, and an appreciation of the reason why the compassless sailor hugged the shore of the continent. With the help of the compass they at first thought that the problem of sailing in a certain direction was entirely solved, but when they found that the distance north and south was as important as direction, they came up against the problem which had determined the invention of the astrolabe, or primitive quadrant and sextant. By imagining they were in typical positions upon the earth, and that the sun was on the sky's equator, they could see that, as a man traveled north from the earth's equator, the noonday sun would be lower and lower in the sky; also that the pole star at night would rise to a higher point with each northward advance, until the star was in the zenith at the pole. With the help of a globe and strings, the fact was shown them that the distance of the sun from the zenith was the same as the angle of latitude at the center of the earth, if measured in degrees on the surface of the earth, or to the latitude of the observer. This relation of the angles is easily seen intuitively. They went to work to make some instrument which would give them a ready way of finding the sun's angle or height in degrees on the horizon plane. The result was worked out in combination, each child making a form of the astrolabe where the sun's ray was received through a tube or circle. The circle of light falling on a piece of paper at the end of the tube gave a means for determining the exact angle by the pointer carried under the tube. The children were then given the correction, or the declination of the sun for that day, and by subtracting the sum of the declination and observation angles from ninety degrees they obtained the latitude of Chicago to within two-fifths degrees. The construction was the result of a long series of steps which lasted through several weeks of daily periods of an hour in length — which implies the development of an idea of angular measurement in the clock, compass and hour circles on the earth.

They then applied this method of locating one or two points in Drake's voyages, in which they had been especially interested, such as the Canary Islands, Cape Verde Islands, the coast of Virginia. They again used their latitude and longitude in a comparison of their own position with that of the Virginia colonists with reference to the difference in the severity of the winter in Virginia. They applied this again in a restatement of the zonal distribution of life on the globe with reference to their previous year's work. The need for selection of a prime meridian seemed to follow logically from the use they had made of the equator in reckoning latitude.

In such work as the above the interest in the problem and appreciation of its importance lay entirely in the relation to the voyages and discoveries which they were following, and could never be undertaken aside from such realization of its necessity. The interest in their own activity in meeting the successive difficulties in construction deepens the interest, somewhat vague and indefinite, with which they start out, while the interest in getting their observation "right" helps them realize the four or five conditions which must be met in taking even so simple an observation as this. In this way such work would seem to fulfil requirements which demand recognition of a problem, hence initiation on the child's part, and utilization by him of means suggested by the teacher to obtain an end which he appreciates. With older children, from ten to thirteen, such points can be worked out as are involved in the construction of a sun dial, of the day circle, the mapping of the chief constellations, and the working out of such a model of the solar system as is suggested in Iles's *Intuitive Geometry,* where a child, after walking blocks to place his various planets, begins to get a faint realization of the enormous distances involved in our own small planetary system. To solve through constructive geometry the problem of finding latitude from altitude of the sun or pole star is a problem which interests and demands all the powers of a thirteen-year-old child, especially when applied in the construction of the sun dial. That the child's mind is fascinated by contemplation of the great distances and by the possibilities for imaginative construction of conditions, which can be found in a study of the solar system, with its history as given in the various hypotheses of formation, has been found as true as the most enthusiastic astronomer could desire.

The main ideas of the earth as one planet in a system, of our seasons as due to the inclined axis which makes the change in direction of sunlight and relative length of day and night, may be made more telling if considered by the child, not only as changes which affect his immediate surroundings, and also the remote quarters of this globe, but as related to similar changes in the sister-planets, Mars or Venus. In the same way the idea of the motions of our satellite, if compared with the motions of other satellites, as well as connected with its varying phases as seen by the child, will gain distinctness of conception. The theories of the formation of the earth as a part of a nebulæ, once like others which can be seen today, should be repeated from year to year as affording a most important and clear illustration of the way in which scientific theories are formed, only to be replaced by others, and helps to do away with the tendency to regard a natural law as arbitrary.

If each time that such a topic is used with children it is so connected with some appreciation of the problem which gave rise to its first consideration, and the problem is elaborated through the construction by the child of some apparatus which he can in part invent, the danger of abstractness cannot be urged. Indications furnished by various experiments seem to indicate that the period just before the secondary school, before the pressure of college requirements is felt, would be the time to give an organized summary of these main conceptions of the oldest of sciences, astronomy, in close connection with one of the newest, geography.

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GRAPHIC REPRESENTATION IN GEOGRAPHY.

I.

GEOGRAPHY as taught in the schools today, and as presented in our modern text-books, is almost a new subject. One of the features of the so-called new geography is the prominence given to relief and to the various landscape forms. The surface of the land — that is, the relation of high lands to low lands — is more and more understood to be the key that opens up to the child the whole fascinating subject of geography.

To the children of twenty or thirty years ago the earth must have appeared flat, with a great number of cities scattered about promiscuously and with rivers flowing in all directions. Geography meant a memorizing of the peculiar shapes which this flat land surface assumes in various parts of the earth, and of cities, rivers, and mountain ranges which were distributed without definite relation to the surface itself. Mountain ranges were named, but the child rarely had anything in mind except the caterpillar-like representation of these features on the map. That the land sloped in a certain direction, that a combination of slopes determined the drainage of a country, and that rivers flowed in the valleys; that the coast line presented an infinite variety of form; and that cities and rivers sustained a relation to the surface of the land: that the relief of land to a large extent has determined the history of our country and is shaping its destiny today — these fundamental conceptions did not enter into the geography teaching of a few years ago.

The best means by which a teacher could test the knowledge of her pupils was the outline map. And, according to the condition of geographic study of that time, the outline map had a legitimate place. Through it the child could express his knowledge of a country; the outline was given often with minute details, dots were placed for cities, lines for rivers, and different devices for the representation of mountain ranges. The outline map was almost symbolic of the mental poverty which was the result of teaching that did not relate geographic facts to the surface of the land.

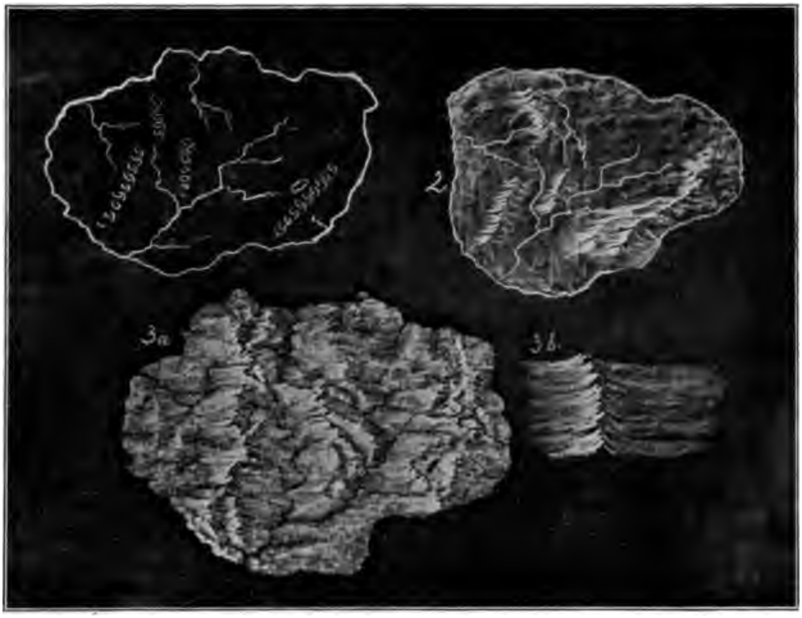
But, in spite of the fact that physiography, the study of land forms, has revolutionized the teaching of geography, outline maps are still used in our schools. The subject-matter of geography has been enriched, but still the means by which the child is expected to express his geographic knowledge remains the same.

The study of relief, of slopes, river basins, highlands, and lowlands, is a study of form. An adequate expression of such features must, therefore, be through a medium that will express form. Sand and clay are such mediums, and also chalk used on the blackboard. This must not be construed to mean that the outline of a country should receive no attention; it should receive attention, but not exclusively. The outline taken by itself is of little value; it is, in fact, but a frame with the picture left out. Only when the outline suggests to the child the outer edge of the surface of the land, where this sinks below the level of the sea, does it become of importance. The land surface itself, and not its edge, is the great factor in geographic study. If the child knows the direction of the great continental divides, of the highlands and lowlands, the outline will take care of itself, as it is, after all, only the horizontal limits of the solid land surface above the level of the sea.

Of the two mediums sand and clay, sand is by far the more satisfactory in the schoolroom. Sand-modeling should precede chalk-modeling (chalk-relief on the board). As a medium of expressing form, sand is very plastic, and mistakes are easily corrected. Questions of perspective, of light and shade, are entirely eliminated in sand-modeling, while these questions must be considered and understood in the representation of land forms on the board. The child's desire to model in sand is spontaneous and needs no encouragement from the teacher. If the child has modeled mountains, valleys, plateaus, etc., in sand, the representation of these features on paper or on the board becomes an easy matter.

Like sand-modeling, chalk-modeling is a mode of representing relief or surface forms. A series of attempts were made in the Cook County Normal School, under the direction of the late Colonel Parker, to devise a means that would enable the teacher and pupil to represent forms of land and water on the board, as it was felt that the outline map did not bring out the important facts of the geography of a country.

Figs. 1, 2, and 3 show the development and final result of these attempts. Fig. 1 is the outline map; in Fig. 2 the outline was first made and the land filled in afterward. The mountains and rivers were superimposed on the flat surface. In Fig. 3 the highlands were put in first, and then the lowlands as a continuation of the slopes from the highlands, the outline was omitted as being unnecessary.



FIGS. 1, 2, 3*a*, 3*b*.

In the chalk-modeled relief map, as it finally appeared, are shown:

1. The real elevation above the lowlands in the representation of hills, mountains, plateaus.

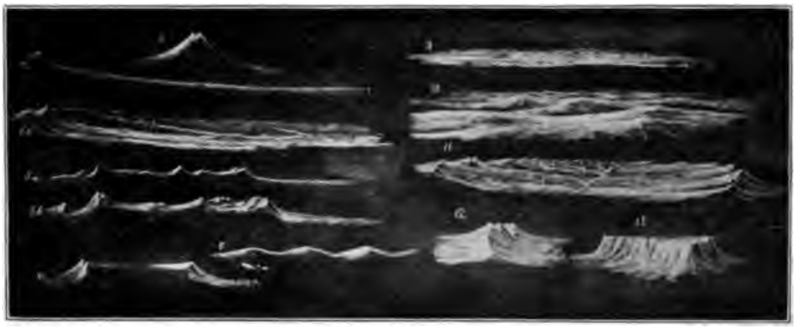
2. Slopes and combination of slopes into river basins, involving the whole system of drainage.

3. The appearance of the country as a land mass, the edge of which is the outline.

4. The unity of the surface; that is, the intimate relationship between highlands and lowlands.

In Fig. 2, with elevations on a flat surface, points 2 and 4 were not brought out.

It must always be borne in mind that the chalk-modeled map, as here shown, is but a device for the representation of relief, and as such it is being modified all the time. The elevations are conventionalized and exaggerated.



FIGS. 4*a*–13.

In order to be of real value to the child, the relief map should be preceded by years of close study and modeling of those land features a combination of which constitutes a continent. The relief map may then be taken up in the fourth or fifth grade; if the previous work has been done conscientiously, it will not present great difficulties, as it is in reality but a conventionalized presentation of landscape features on a small scale.

The relief map made by the child should be an expression of his knowledge and feeling of a certain land surface; as such it should show individuality and personal interpretation. It will therefore be different from that of his teacher or from those of his schoolmates. A relief map, if copied, is worse than useless.

In making the map it is important that the child should begin with the highest parts of the land — that is, the divides — and proceed from them to the lowlands (see Fig. 3*b*). Only in this way will the unity of the surface be maintained. If a flat surface is made first and the mountains put in afterward, a distinct separation between highlands and lowlands will be the result, and the contrast in color necessary for representation of relief cannot be given.

The only purpose of the chalk-modeled relief is to convey a broad, general impression of the surface conditions (structure) of a country; only the essential, characteristic features should therefore be shown. In the map of South America these great characteristics of the country should find an expression (see Fig. 21):

1. South America as a great land mass projecting above the surface of the sea. The general shape of the continent.
2. The continuity, unbroken character, and elevation of the western mountain system. The precipitous descent, and the absence of a coastal plain along the Pacific.
3. The high plateau of Titicaca.
4. The eastern highland systems. The broken, irregular, discontinuous character of these highlands, and their comparative low elevation.
5. The great central lowlands.
    - *a*) Gentle slope from the Atlantic to the foot of the Andes.
    - *b*) Division into three great river basins: (1) Orinoco, (2) Amazon, (3) La Plata.
    - *c*) The divides between these basins.

NOTE.—The map should be so made as to show that these rivers and their tributaries must flow in the direction in which they are flowing on account of a certain combination of slopes.

The general but characteristic picture that the relief map gives of the surface should provide the frame into which the child can place and arrange the multitudinous facts and details of geographic knowledge.

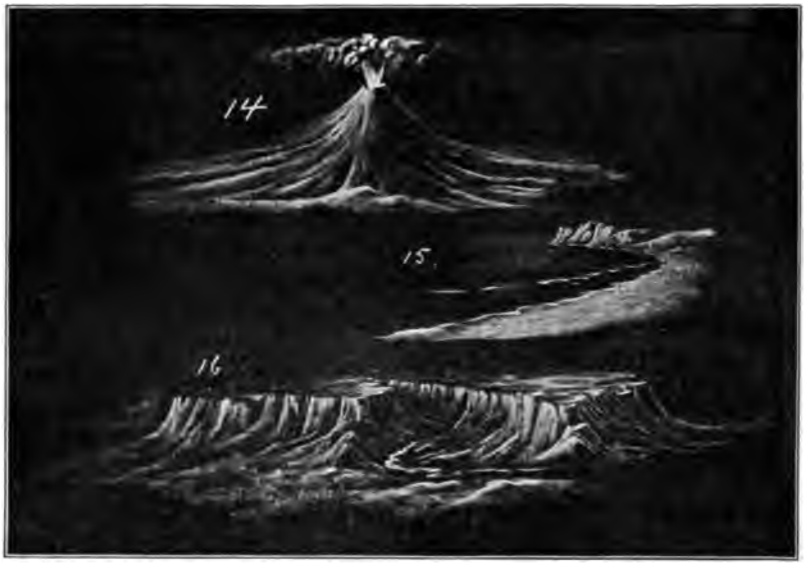
The relief map is a symbolic conventionalized representation of surface features and landscape forms. As a symbol it has no other function than to bring out in the child's mind pictures of the real country, and it should therefore not be used until the child is able to interpret its meaning in terms of landscape forms. The map cannot give the child the appearance of rivers, mountains, plains, etc.; the appearance of these features should have been studied previously through observation, pictures, and descriptions.

All that the map can do for the child is to give the extent and distribution of these features on the continent, thus organizing his previous experience of land forms.

In analyzing the map Fig. 21, the following should be noticed:

1. The light comes from the left. This is merely conventional.

2. The strong contrast in light between the two sides of the mountains. This contrast gives relief.



FIGS. 14–16.

3. The high light on the left side of the mountains, the shaded right side of the mountains, and the medium light on the plains.

4. Rivers, lakes, and coast line are shown with charcoal. These features should be represented white on paper.

5. More color is given to the more elevated parts of the land. This might be worked up according to a definite scale, and the coloring graded so as to show elevation.

6. Differences in the heights of mountains are shown.

In the representation of relief on the board (chalk-modeling) one point is essential — the slope of the surface. If the teacher can do no more than show the direction of the surface with a stroke or two, a great deal is gained. For this purpose the blackboard should be used continually by teacher and pupils. If, for instance, the western slope of the Mississippi is under discussion, and the teacher tries to bring out the gentle but steady rise of the land from the Mississippi to the foot of the Rocky mountains, a line extending across the entire length of the board will give this fact better than hours of talking (Fig. 4*a*). In the same manner the western plateaus, and their relation to the Pacific on the West and to the great plains on the East, may be shown in a line giving the direction of the surface (Fig. 5*a*). In a similar manner in Fig. 6 the combinations of surfaces in a plateau are shown; in Fig. 7, steep surfaces (mountains); in Fig. 8, rolling surface.

FIGS. 17–19.

This graphic representation with single lines leads easily to a more complete representation of the surface; for instance, in Figs. 4*b* and 5*b*.

If the various landscape forms are analyzed, it will be seen that their different appearances are principally due to differences in the direction of their surface slopes. For instance, in the level country the horizontal direction predominates; in a cañon two steep surfaces meet a horizontal surface. Fig. 9 shows a level surface; Fig. 10, a rolling, undulating country; Fig. 11, gently sloping surfaces (river basins); Fig. 12, steeply sloping surfaces (mountains); Fig. 13, a steep surface (bluffs and cliffs); Fig. 14, concave surfaces ascending toward one point (volcano); Fig.

16, a combination of horizontal and vertical surfaces — buttes, mesas. By a combination of these surfaces an infinite variety of land forms may be represented: Fig. 19, cañon; Fig. 15, level and vertical surfaces (beach); Fig. 16, cañon in plateaus.

Chalk-modeling is a representation of mass, and lines should therefore be avoided, except where a detailed analysis of the surface is desired. The broad surface of the chalk should be used and only the essential features of the landscape emphasized.

Another essential point in the representation of surface is texture. Is the surface rocky or sandy, water or land, cultivated or uncultivated, are questions that must be answered. Figs. 15, 18, and 19 show surface or water, horizontal or vertical; Fig. 15 shows sandy surface; Fig. 17, surface of ice; Fig. 19, wooded surface; Fig. 16, rocky surface.

Chalk-modeling may be done on paper as well as on the board. On paper the best medium is charcoal or a very soft pencil. It must be borne in mind, however, that the medium used on the board is white and on paper dark, and that therefore the treatments on paper and on the board differ. It may perhaps be safe to make this general statement concerning the use of the two mediums: In the representation of white or

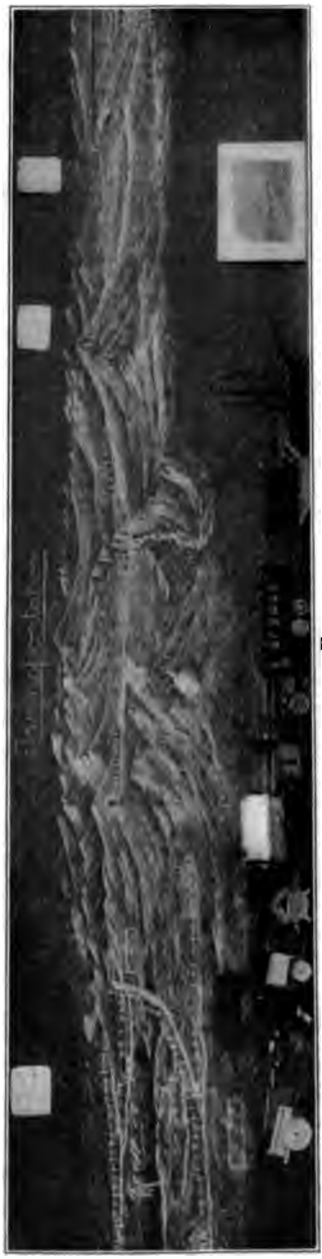


Fig. 20.

bright colors, or of light, the white material must be used. This on the paper is the paper itself, and on the board the chalk. For instance, in Fig. 14 the reflection from the molten interior is bright (white), and must be so shown, whether on paper or on

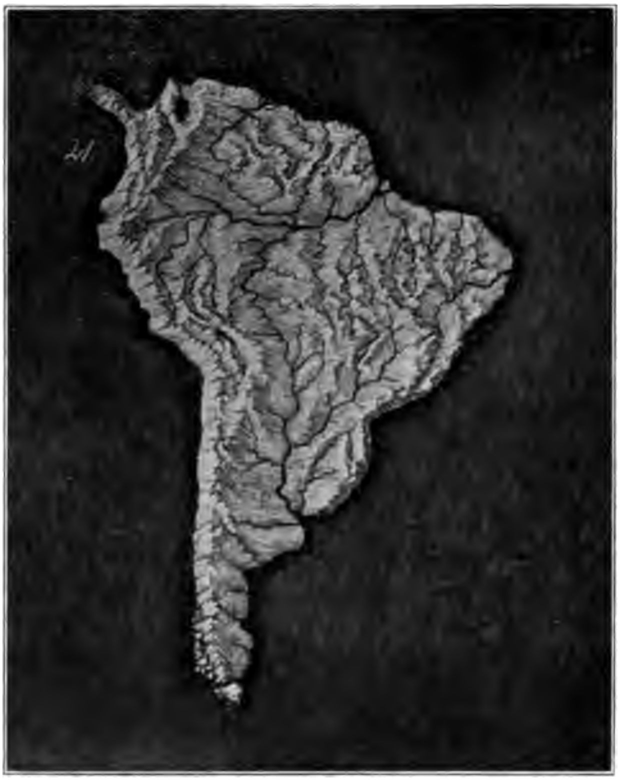


FIG. 21.

the board; similarly, the crests of the waves in Fig. 18, and the snow and ice in Fig. 17. To use here the dark material heavily on paper, as chalk is used on the board, would be to convey wrong ideas. Children will often make such mistakes. In Figs. 9, 10, and 11 the chalk is used more heavily in the foreground to convey distinctness (perspective); and the medium on paper would be used in a similar manner.

In Figs. 9-19 the landscape is shown as it would appear to an observer when looking in a definite direction from one fixed standpoint; this involves perspective. In the map, Fig. 21, the landscape is represented, not as it appears, but as it actually is; that is, perspective is largely eliminated. Fig. 20 is a bird's-eye view of a large section of the country; it is a combination of a picture and a map, in this, that perspective is shown, and that here a much larger stretch of country is sketched than can possibly be seen at one glance. The representation is conventionalized and exaggerated, but at the same time pictorial. As an aid in teaching geography such a bird's-eye view is extremely helpful for showing the relationship and combination of surface features. There is hardly any limit to the extent of surface that may be graphically shown in such a bird's-eye view; it may involve hundreds, even thousands, of miles. The sketch in Fig. 20 was used in connection with a study of transportation in the second grade. The teacher chalk-modeled the surface, and the children were asked to provide railway facilities for towns that were separated by a rough, mountainous country. The children surveyed the country to find the cheapest and best route for the railroad, and then put in the tracks, tunnels, bridges, etc.

The aim in chalk-modeling is not to make finished pictures nor to produce artistic effects, but to describe geographic features clearly, scientifically, and rapidly wtih the chalk. If this aim is held persistently in view, the result will be "art" as well as geography. Lack of artistic ability is no excuse for a failure to carry on this work in the class-room. What is needed on the part of both teacher and pupils is a definite knowledge of landscape forms and of relief, and a willingness to express this knowledge in an intelligible way.

II.

THE USE AND ORGANIZATION OF PICTURE COLLECTIONS.

The use of pictures in the schoolroom is of great importance. In giving the child vivid images in the various subjects of study, pictures are inferior only to actual observation. A good picture comes next to the real object; by its study more may be learned about a topic in a few minutes than is possible by hours of book work. But in order to be of value for educational purposes, a picture should be properly studied, and should receive the same attention that is given to the printed page. A picture has a certain story to tell, but unless sufficient time is given, this will not be revealed to the observer. The children should be trained to read a picture as they do a book. They should be led to see that it is not a mere embellishment of the text in the book, but that it is of equal importance with the text. Thus studied, pictures will reinforce all the work of the schoolroom and become an important source of information.

A picture collection may be organized in every school, whether in the city or the country. Hardly any expenditure of money is necessary for this purpose, as the best pictures may sometimes be had free of charge. Every day valuable illustrations pass through our hands to be thrown away or forgotten. Our modern magazine is a storehouse of this kind of material, with its wealth of pictures illustrating every phase of geographic knowledge. Many of these pictures are large, admirably executed, and furnish just the illustrative material which would add life and interest to our teaching. Almost every household has bundles of old magazines, thrown away in some forgotten corner in the garret or the cellar. People are only too glad to get rid of them, and if the teacher would make an appeal to the pupils for old magazines, material with which to start a collection of pictures would come in rapidly. Some of these would be of slight value, but enough would be found to make the trouble worth while. Newspapers, in particular the Sunday editions, also contain excellent illustrative matter. Some of the foreign weeklies, German, English, and French, have very large pictures which, when mounted, are an acquisition for any collection.

Another source from which we may obtain pictures without cost is found in the advertising matter distributed by the different railways, as booklets, folders, and separate pictures. Some of this material is excellent and can be had in great abundance. By visiting the various railway offices a teacher may make a very important addition to her collection and obtain pictures illustrating, not only our own continent, but also foreign countries.

Thus if everybody contributes, teacher as well as pupil, a considerable number of pictures may be obtained within a very short time. Surprisingly large collections have been made in this way, and have proved of such value that the teachers, if deprived of their use, would be very much hampered in their work. In this case, as in so many others, the best educational material can be had free of charge, if the teacher is alert and willing to use that which is near at hand.

The next step in the organization of a collection is the mounting and classification of these pictures. The children will be glad to do the cutting and pasting. If money is not available, sufficient cardboard will usually be found in the school or may be brought by the children. Large pictures should be mounted separately, but smaller ones may be grouped together on the same chart. This grouping should be done according to a certain principle; for instance, pictures illustrative of lumbering may be placed together so as to be a graphic representation of the whole process from beginning to end. Charts illustrating the various industries may thus be worked out. Similarly pictures of a certain city, state, or country may form the material for various charts. This arrangement of small pictures on large pieces of cardboard has many advantages. Where one small picture by itself would mean very little, when grouped with others it reinforces each one in bringing out a certain idea or a certain story. In this way an almost endless variety of charts may be composed out of the heterogenous material brought in by the teacher and pupils.

These charts should be planned by the children and should be an outcome of their study. If artistically made, they meet two important requirements of schoolroom decoration: they are made by the children, and they reflect the work that is being carried on in the schoolroom. These charts should be kept, and will furnish excellent geographical material for the study of similar topics in the future.

Another suggestion may be given here for the mounting of small pictures. On a large outline map — for instance, of South America — made on cardboard, the small pictures might be placed so as to represent different sections of that continent. The pictures when in place should form a continuous whole. This work requires care on the part of the children and a thorough knowledge of the country.

If mounted on separate pieces of cardboard, the pictures should be carefully classified according to subjects and topics. No definite classification is suggested; that one should be adopted which seems the most economical and convenient in a certain school. The pictures may be classified under the main heads of "Rivers," "Glaciers," "Industries," "Cities," etc. These may be further subdivided under various topics. They should then be labeled and marked in such a way that a glance is sufficient to determine what they represent and where they belong. Only one thing more is necessary to put the collection in working order — a number of large envelopes. These may easily be made by the children and labeled according to the character of the pictures they are to hold. It is hardly necessary to add that in the use of this collection, as finally organized, the same rules should be enforced that regulate a library.

If the teacher or the school has money for the purchase of pictures, catalogues should be obtained from the various firms which have begun to publish whole series for use in the schools. These series have been very carefully selected, are in all sizes, and sell at very low prices. (See Miss Chisholm's list below.)

To sum up: All that is necessary to organize a collection of this kind is to save the pictorial material that is usually thrown away, to interest the children in its collection, and to have it mounted and so classified as to be of the most effective and economical use in the schoolroom.

The complaint is often heard that the teachers are hampered in their teaching of geography by a lack of material. This complaint may have some justification, as far as books are concerned. As for maps and pictures, there need be no lack of material. The teacher should be able to make her own maps in addition to the meager supply of printed maps; with a knowledge of the country, and with a little practice in chalk-modeling, this is possible.

It has been the experience of the writer that in the school where the teachers work up their own material, that which has been bought, often at a great expense to the school, is used to a very limited extent. The sand or chalk-modeled map made by the teacher to meet an immediate demand in the schoolroom is far superior to any map furnished from the outside, and the picture collection that has been gathered from all available sources, and that is being constantly enlarged by contributions from teachers and pupils, will be infinitely richer in numbers and variety than any series of pictures published by book companies.

George Thorne-Thomsen.

University of Utah.

WHERE TO PROCURE PICTURES.

From the following list of addresses good pictures may be purchased:

The Detroit Photographic Co., Detroit, Mich.: 8x10 inches, 35 cents; larger sizes at different prices; catalogues of either American or foreign scenes, price 10 cents; stereoscopic slides, 40 cents each. All the pictures of the Detroit Co. are good. They are printed in colors. In the collection will be found pictures showing the topography, industries, architecture, and ethnology of India, Egypt, Italy, Spain, Switzerland, France, Norway, Sweden, Holland, Belgium, Germany, Great Britain, United States, Mexico, and other countries. They also carry the well-known W. H. Jackson plates of United States and Mexican scenery. These can be had in plain photographs as well as in colors.

Mr. Elgin R. Shepard, 2931 Portland avenue, Minneapolis, Minn., official photographer for the Great Northern Railroad: 9x11 inches, $1; slides, 40 cents; catalogues. These are very beautiful photographs and are mounted on good cards. The collection consists of views taken on and near the line of railroad, as well as a number of Alaskan scenes.

Mr. Davis, Honolulu, H. I.: 7x9 inches, 30 cents. Mr. Davis has many photographs of different sizes, varying in price according to the finish desired. This is a good collection of tropical pictures, showing the vegetation, the rice, sugar, coffee, and other industries, and containing also a fine selection of volcanic views.

K. Tammura, 2&16 Benton Dori, Itchome, Yokohama, Japan: Colored photographs; stereoscopic slides. Mr. Tamamura has one of the best collections of photographs of Japan, illustrating the country, its industries, architecture, and ethnology.

Libreria Spithover, 84 Piazza di Spagua, Rome, Italy: 8x10 inches. Photographs of scenery, architecture, and art.

G. Sommer & Figlio, Sargo Vittoria, Plazza Sommer, Naples, Italy:

8x10 inches, 20 cents each, $1.16 per dozen. A good selection of Italian and Swiss pictures, especially of Pompeii, Vesuvius, and surrounding district.

G. Brogi, Florence, Italy: 8x10 inches, 20 cents each. Pictures of the cathedrals, art, and history.

Alinari & Cook, Corso 137*a*, Rome, Italy: 8x10 inches, $1.16 per dozen. Topography of the country and art.

Charles Naya, Place S. Mark N 75-79, Venice, Italy: 8x10 inches, $1.16 per dozen. Venetian scenes, art, and architecture.

A. Beato, Luxor, Egypt: 7x11 inches, $1 per dozen; no catalogue. A very good collection, illustrating everything of interest in Egypt.

Aristote Rhomaides, I Place de la Constitution, Athens, Greece: 8x11 inches, 20 cents each. Views of Greece — ruins, monuments, art, and landscapes.

Thomas Paar, Darjelling, India: 7x8 inches, 85 cents per dozen; 8x10 inches, $1.20 per dozen; no catalogues. Mr. Paar will select and send photographs, if told what is required. His collection contains the best to be had in India.

A. Giraudon, 15 rue Bonaparte, Paris, France: 8x11 inches, 1 franc each. A large collection of art and architecture.

London Stereoscopic Co., Regent street, London, England: 7x11 inches, 36 cents each. English scenery, architecture, art, and industries.

Berlin Photographic Co., Unter den Linden 4*a*, Berlin, Germany: 7x10 inches, 36 cents; 15x19 inches, 72 cents. A very large collection of photographs, mostly of art.

Erdmann & Schanz, 4 Salcot Road, Bolingbroke Grove, London S. W., England: A large variety of pictures on all subjects.

M. Frankenstein, Vienna, Austria; Stengel & Markert, Dresden, Germany; and Wurthle & Sohn, Salzburg, Austria, all have good photographs of the mountainous districts of the southern part of Europe.

A. Briquet, City of Mexico, Mexico: Large collection of Mexican views.

When pictures are desired of any particular region, they may generally be had if one writes to the proprietors of the large hotels, who usually carry them for the convenience of their guests. Names of the reliable hotels can be obtained from guide-books, such as "Cook's Tours," etc.

The United States government now sends photographers with the surveying parties, and the cuts which appear in the reports may be obtained from the government department, at the bare cost of printing. These cuts vary in size and cost.

The Perry pictures (Boston, Mass.) of art, birds, trees, etc., are too well known to need any explanation.

Stereopticon slides can be had from the following places, in addition to those already mentioned:

Lévy et Fils, 25 rue Louis-le-Grand, Paris, France: Catalogues, sent on application, for almost every country in the world.

Farrar collections (Charles Farrar), Unity Building, Chicago, Ill.: Sets of slides arranged for topical study of countries and cities, with special reference to art and literature. A written description accompanies these slides.

Mr. E. R. Shepard, Minneapolis, Minn., mentioned before, has some on mining, harvesting, milling; price, 40 cents.

John H. Thurston, 50 Bromfield street, Boston, Mass., has slides illustrating nearly every country. Under the direction of the Boston Geography Society, Mr. Thurston has arranged several sets of educational slides. These comprise: rivers, young, mature, old, and underground; swamps; stratification; coastal plains; plains, prairies; mountains; volcanoes; weathering; shore lines, waves, and tides; islands; glaciers; meteorology; agriculture, lumber, cattle-raising; coal, cotton, silk, and fish.

Many of the railroads publish good pictures that may be had for little more than the cost of postage. The Boston & Maine Railroad, Boston, Mass., issues a series of six booklets, containing thirty-one pictures each, at a cost of 6 cents apiece. These are taken from photographs, and give mountain, river, coast, lake, and historical views of New England.

The Northern Pacific, Canadian Pacific, "Frisco Line," and many other railroads, issue booklets full of excellent material for the geography teacher. Some railroads publish monthly magazines — such as *Sunset,* San Francisco, Calif.— that give a splendid idea of the sections of our continent traversed by these lines.

ANNA CHISHOLM.

THE UNIVERSITY OF CHICAGO,
School of Education.

ELEMENTARY FIELD WORK.

I.

ANY phase of school work referring to elementary education must be considered in terms of human development. Development, so far as understood, is the product of effort to satisfy individual needs, desires, curiosity, purpose.

In any organized process of elementary education there are three prime considerations: (1) the pupil, with his inherited organism and its possibilities, mental and physical, of development; (2) the teacher, with her realization of the developing possibilities of the human organism and her teaching ideal; (3) subject-matter, or the means and demands for individual action and effort in the developing or educating process.

The normal demands and opportunities for human effort and action, and hence the means for development, are found in the individual's immediate environment. This environment, although there are many points of intergradation and frequenty no sharp line of demarkation, may be divided into two great units: (1) that phase almost entirely dominated by man — the social environment; (2) that phase not dominated by man — the nature environment. In elementary education we might add a third — the schoolroom environment. Environment has always been a counteracting agency in formal elementary-school work, because of the tendency of the school to isolate the child from his true nature and social environment, and its interests, and confine him to the barren, narrow, and artificial environment of the classroom.

The needs, interests, and curiosities of the child in this broader, nature and social, environment are a part of his inherited legacy.[1] The things which excite his natural interests, quicken his pulse, and determine a full flow of blood to the entire nervous system — the absolute conditions for normal development — are found in his nature and social environment. The effort of the school should be to continue securing developing results by utilizing and extending the pupil's interests in his natural environment and directing these interests to intelligible ends. The vital part of the educating process is ever this interrelation of the pupil with his environment, nature and social, to the end that he may gain a certain intelligent, physical and mental, adjustment with his environmental situation. Adjustment with environment is not a static, but a dynamic, condition, and in the educating process the work must be of such a nature as will develop a dynamic quality of mind-action which can keep in adjustment with environment change and tendencies. Another principle requiring better-organized consideration, in elementary education, is that educating is a cumulative process from the standpoint of thought-content as well as from the standpoint of form and skill. Considerable attention has been given to progression in language, reading, number, and other forms of expression, but little has been done to utilize and unify progressive thought-content.

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[1] PARKER, *Talks on Pedagogy*, chap. i.

The child's observations and sense-experiences bear the same relation to his true thinking and his inferences as words and sentences do to the use of language in expressing thought: they are the vocabulary of thinking, and by addition, adjustment, and readjustment become the controls of human action. It is in the light of unity of thinking that field work should be attempted. Every teacher who has had experience in elementary field work is aware of the difficulties of following a special topic of study, owing to the overwhelming number of things which attract the various pupils and minimize or drown out the main point of the excursion. In the beginnings of field work we should not attempt to remedy this difficulty by limiting the pupil's experience nor by attempts at external inhibition, but to remedy it by some plan of work that will demand every experience and observation afforded by the area studied. Early childhood is the period for acquiring a great store of sense-experience as well as a spirit of enthusiasm and sense alertness, and this child range of interest and curiosity is a quality to be encouraged and extended, and not limited and thwarted by class-room isolation. As the pupil gains in power of investigation or power of holding some special problem in mind

— *i. e.,* when the answer to some problem becomes a mental desire — the selection of the required data from a more or less complex environment will care for itself.

SUBJECT IN FIELD WORK.

Every field environment is composed of a greater or less number of interrelated and intergraded earth-surface types, the physiognomy of which may be dominated by —

1. Topography: hills, mountains, plains, valleys.
2. Physiography: where climatic conditions have greatly modified the topographic aspect of surface by producing deserts, swamps, etc.
3. Vegetation: where the topographic aspect is largely obscured by conditions of vegetation, thickets, forests, etc.

Locally these various surface types are known as —

1. Shores and beaches of lakes and seas.
2. Lakes, lagoons, ponds, marsh, etc.
3. Gullies, ravines, river valleys, with their components of banks, bluffs, flood plains, etc.
4. Ridges, hills, mountains.

(5. Prairie, meadow, forest.)

Each of these areas may be considered as a unit of environment, and as such a unit for study.

The general physiognomy of any one of these units, with its detailed content of topography, minerals, plant life, and animal life, is the subject for student action and effort in field work. Granting, however, that the field affords a special wealth of subjects for study, we have yet to determine to what unified end or purpose this student effort is to tend. The mental influence of the most ideal area may be very small; the naturalist in the mountain is a very different being from the mountaineer who is striving to eke a livelihood from the same rugged environment.

Modern science has formulated two facts of far-reaching significance which may be considered guide-posts in field work: (1) that the surface of the earth is, and has been since its existence, undergoing constant change; (2) that the earth, with its land and water, was not arranged for the convenience of life, but that animals and plants had to live on the earth as they found it and to fit themselves to its changing conditions. This modern conception of a constantly changing surface, inhabited by an equally developing, changing, and adapting life, differs vastly from the idea of a created earth with life created to inhabit its varieties of topography. The development of a quality of mind-action to grasp intelligently this new conception is vastly different from and superior to the quality of mind which could appreciate the old conception and act under it. It is only through a wide acquaintance with the surface types and their content, and under proper direction, that this desired quality of mind-action can be realized.

The outline of subjects must be developed *pari passu* with the experiences of the student, and this arrangement need in no sense of logical development follow an outline from the standpoint of the adult. It may be fairly stated that the student ends where the adult's outline of subject begins. Considered from the standpoint of adult study or preparation for teaching, the outline for field study in any local environment should be, in general, somewhat as follows:

I. THE ENVIRONMENT AS A UNIT.

1. A topographic map of the area or environment under consideration.

2. Location of the best type topographies within the area: swamp, shore, ravine, prairie, etc. These represent the areas to be visited by class excursions.

3. The forces acting or having acted in the area to mold the present topography: influence of wind, of running water, of wave action, of glaciation, of vulcanism. The details of the method of work of each force being fully investigated.

II. A TYPE TOPOGRAPHY AS A UNIT FOR STUDY — A SWAMP.

1. Conditions essential to the formation of a swamp: (*a*) topographic, (*b*) structural, (*c*) climatic.

2. Various ways in which a swamp may originate: shore barrier, river oxbow, moraine tangle, sinking of earth.

3. The shore and water condition of each type of swamp at its genesis. (NOTE.— A lagoon or swamp formed by a barrier along a lakeshore would, at its genesis, be quite different from one formed in a tangle moraine of a glacier.)

4. The genesis, and environment conditions at time of genesis, of the particular swamp under consideration.

5. Changes that have taken place in the swamp since its genesis: (*a*) change in water conditions — fresh to stagnant; cause, (*b*) changes along

swamp border and bottom — soils, character, etc.; (*c*) changes in variety of life-content.

6. Probable life-content of swamp and its margin at its genesis; advent of new forms; zones of distribution.

7. Adaptation of animals and plants to a swamp environment: (*a*) adaptations for living in a swamp environment; (*b*) adaptations for reaching new areas.

8. Influence of life on the area.

9. The ultimate end of the swamp as a swamp, and the procession of life through the area during its topographic life-history.

A third phase of study, having reference to the living forms of the swamp, and intimately related to II, should be included in this field work.

III. STUDY OF LIVING FORMS, COMMON TO THE SWAMP AT THE TIME STUDIED, AS UNITS OF ENVIRONMENT.

1. A fair acquaintance with, and identification of, the living forms, animals and plants, common to the area.

2. Their habits and adaptations: (*a*) life-histories of types, food, enemies, living needs — cage and aquaria study; (*b*) morphology and physiology.

3. The particular swamp conditions which attract various living types to the area: (*a*) purely aquatic life; (*b*) amphibious; (*c*) terrestrial; and their seasonal and zonal distribution.

4. Adaptations to the changing conditions of the swamp: (*a*) migration; (*b*) change of habit and structure to meet changing conditions; (*c*) dying.

Admitting the above to be in a general way the study-content of field work and the working outline of the teacher we are still left to face the main question — the proper use of this subject in the educating process. Elementary education is to be considered in terms of human development. Development is the product of effort induced by an impulse of curiosity, interest, desire, need, accompanied by the reaction of a quickened pulse and a fuller flow of blood to the entire nervous system; this condition is an inherited quality of the human organism. The function of the school is to further this inheritance. The line of movement, so far as related to field work and science, is from miscellaneous sense-experience induced by curiosity to great world-controlling conceptions guided by intelligence.

Elementary field work, for the kindergarten and primary grades, should consist of visits, at different seasons of the year, to various type areas of the region. The child's curiosity and desire for sense-experience should have fullest play. Playing with waves and currents of water, piling sand, collecting pebbles, the noise of the breakers, the creeping of insects, the movements and songs of birds, the tracks of animals, the swimming of fishes, the business of the ant hill, the odors of plants, the colors of flowers, the feeding of insects on leaf and flower, the hiding-places and burrows of animals, and a multitude of objects and phenomena, are essential needs and experiences in the development of the normal pupil. These experiences are to be gained, not wholly through a sense of study, but through a sense of enjoyment; else the pupil misses the very nexus of child-life. These are the things that actually teach; the teacher needs but guide and direct, seek good environments, and care for the development of skill in expression.

Compare a day in a rich outdoor environment with the best that the class-room can offer, so far as it relates to the emotions essential to development. The return to the school should be accompanied by a limited, well-selected collection of representative materials — minerals, plants, animals. These should find a place in boxes, pots, cages, and aquaria to be used in class study and expression as required. This material, especially if cared for in pots, cages, and aquaria, begins to take on an individuality, leading to an interest in feeding, movement, breathing, etc. It is worth keeping in mind that this room material, the product of a class excursion, though it may be identical in character, is stronger in its education appeal to the class than material placed in the room by the teacher.

Thought of in terms of subject-matter, logically developed, the apparently rambling nature of this work is strikingly evident. Viewed in terms of human growth, the teacher having a definite directing purpose and line of movement, it assumes quite a different aspect. We have been greatly concerned and agitated over the continuity of study in spelling, reading, writing, language, number, etc., but the continuity of true educative thought-content has given less concern.

Growing out of this range of sense-experience there come periods when some one object or phenomenon holds the child's attention longer than another. This marks the first stage of specialization. By interest in running water the child inhibits the rest of phenomena and objects within his ranges of vision and adds to his running-water experiences further facts of force, change in color, variation in current, movement of materials, deposition, etc. Similarly, by his interest in some animal he inhibits all objects along his pathway in searching out and observing or destroying the animal. From these special interests should be selected topics for class study around which are grouped all the experience of the class. Such questions as may be raised which require further experience and observation should be answered by furthering the students' experience. This differentiation or periodic specialization may continue indefinitely and become more and more specialized, but in all cases it keeps rooted in some type area and moves in the direction of the best thought of the time. It continues unifying and cumulating from the kindergarten stage to the period of original research.

The student power of the individual at any one period of time or stage of progress is judged more by his working ability, on a given problem, than by his ability to answer any test of unrelated questions. Being able to state that running water has been an important factor in earth sculpture is very different from viewing a landscape and detecting the forces that have molded it. Adjustment to environment is worked out by knowledge and contact with environment, and the schools need to be most alert in their every effort to broaden and strengthen the student in his contact with his world-environment.

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THE DEVELOPMENT OF THE SCHOOL MUSEUM.

II.

THE school museum has as its function the solving of problems relating to availability, use, and educational value of various materials collected for and through class study. It should be intimately associated with the school library, which has as its function the solving of problems relating to availability, use, and educational value of reference books, pictures, maps, etc., in school work. Each should be unifying, organically related, working centers for a great part of the school work.

The real value of the museum is to be computed in terms of its influence on the working efficiency and intelligence of the entire student body of the school. Its influence is greatest when its content of material and its arrangement is in intimate accord with the thought-movement of the several branches or phases of study of the school work. If a class was studying the processes, products, and uses of iron, the museum should establish some relation with the study whereby these processes and products could be observed, or could be collected and arranged to show varieties of ore and stages in its development.

THE RISE OF THE SCHOOL MUSEUM.

The organization of a school museum presupposes a shift from the constant use of a text-book to an interrelated use of the text- or reference-book with the actual material. The lowest stage of teaching was when the student was confined to one text-book as the entire source of his effort and information; the advent of supplementary reading marked a distinct stage of progress in teaching, and naturally culminated in the establishment of the school library. This gave the student several points of view, and admitted of some comparison and personal opinion; it fostered individuality. A third stage of advance in teaching is marked by the liberal use of materials common to the student's nature and social environment. It places the student's sense-experience, observation, and imagination first, and by reading and expression leads him to broader and more correct interpretations and conceptions. So long as the mass of the school work was carried on in the class-room, with the text and the teacher as the sources of knowledge, there was no museum problem, for the simple reason that, since it was all in the book, neither teacher nor pupils felt any distinct need for the use of materials. But, with the advent of laboratories, workshops, field work, and the use of illustrative materials in general class work, there arises a very distinct problem as to economic methods of securing, preserving, and distributing these materials for study. The advantages of centralizing these materials in a museum are the same as the advantages of centralizing the reference books in a library, and modern school architecture should make provision for both, either combined in one room or in separate but adjoining rooms. The nature, variety, and quality of the school-museum materials are problems to be determined by the several classes and subjects of study of the school; or, in other words, by the teaching methods and course of study of the school.

The question resolves itself into: (1) Can the use of actual materials, correlated, so far as possible with the text- and reference-books, render teaching more effective in the educating process than the text- and reference-books alone? (2) From what standpoint of approach, or method of use, may materials be most effective in the educating or developing process? These questions are new in application only. From the point of genesis they belong to the period when the questions relative to the establishing of laboratories in science-teaching were first raised. Since that time many of the things which were then in a hypothetical or experimental stage have, through broader conceptions and application, become great industrial and social factors; they have, by their application, become revolutionizing factors in human progress, both mental and material. There are grave signs that the schools are failing to follow these experiments and experiences through the laboratories and workshops, into their broader application in the nature and social world, and by this failure are leaving the students without broad up-to-date conceptions of their true environment. The result is that the student, on leaving school, instead of finding himself in working adjustment with the environment for which he was being educated, finds himself out of adjustment and with narrowed experiences because of his school isolation. We may take infinite pains to properly educate students, while at the same time, from lack of broad experience, spontaneous mental action, and opportunity for individual initiative, we are deadening many of their higher individual qualities.

The school museum should mark that stage in school work where students and teachers follow the hints and suggestions of the class-room out into the broader, nature and social, environment, and discover their broader meanings and applications. No special good can come from knowing materials, facts, and phenomena apart from their true environment.

In elementary education the methods and conditions of securing knowledge are of infinitely greater value than the facts themselves. Unless the facts and experiences of the pupils are the product of environment, something organically connected with environment, and existing as they do because of this relation, they have little intrinsic educative value. Science criticism has long since abashed the teacher for attempting the dissection of the crayfish without the student being first acquainted with its haunts and habits; but the teaching of number for number's sake, and demands for expression with nothing to express, has not yet blushed.

The intent of this seeming diversion from the main topic is to point out that the school museum may be a poor factor in a school, unless the school has first felt some need for material in its work. Dust-covered cases, with unused and unkept materials, are not rare sights in these days; just as there was a time of locked cases and unused books in the days that marked the beginnings of school libraries. There is nothing of intrinsic value in materials, for school work, apart from an individual, mental or physical, need for the material. In the manual-training room the student feels a need for wood when he has something to construct; the kind of wood selected should be determined, to a degree, by the thing to be constructed and the student's knowledge of the woods that are best adapted to the purpose . This feeling of purpose, of use, with the emotion that it carries with it, and experienced by every enthusiastic student who has a problem is something of the emotion which we wish to have students experience in their work with museum materials.

Museum materials may influence the student's life in three ways: (1) by enlarging his range of acquaintance with materials, its occurrence, nature, variety, and properties, through sense and personal contact; (2) by broadening his conception of the relations, occurrence, meaning, uses, and developing possibilities of materials; (3) by exhibiting products representative of high or progressive development in human skill and intelligence, thus giving students broader conceptions of human power and possibilities and higher ideals. I cannot conceive of education being broadly effective unless it takes into well-balanced account these three essentials.

The school-museum collection may grow in three ways: (1) by purchase and donation; (2) by curator collection and exchange; (3) by student collection and exchange. The mass of the collection should be the product of the work of the school; its arrangement an expression of the content and direction of student skill and thought-movement. The museum is equally interested in both living and dead, organic and inorganic materials.

THE DEVELOPMENT OF THE MUSEUM COLLECTION.

1. *Student collection.*—The exact content of the school museum and the arrangement of this content will be determined by the class work and the age of the students using it. The museum of the School of Education is planned to accommodate students from the kindergarten to the adult in the College.

It is desirable to keep in mind that, educating being a cumulative process, the materials must be constantly shifted to keep in accord with the growing thought and conception of the students. The museum must take equally into account working facilities for students and display of material. There is no normal phase of interest in material that is too insignificant for the museum to recognize and foster. If the most elementary pupils are interested in the variety of shapes and colors of minerals found along the lakeshore, then the museum cultivates that interest by affording a storage place for their collection. It also furthers their interests and experiences by giving the pupils access to a still greater variety of mineral colors and forms.

When at a little later stage these students begin to recognize quartzes, granites, sandstones, limestones, etc., their earlier collections are available for additions, tests, and rearrangements. This experience is again extended by the museum giving them access to a greater variety of quartzes, granites, sandstones, etc. Again their class study may lead them to observe building and decorating stones, and again they readjust and renew their collection from this new standpoint. In this way a number of collections, each representing some different conception of minerals or rocks, are made. The student's conception and experience is gradually broadened, and the museum collection is intimately connected with some natural outdoor environment; and the development of a quality of mind-actions by which this isolated collection is projected into its natural out-of-school setting is one of the most important parts of it. The same idea applies to plants, animals, and industrial products. With a little care in frequent use of names the students are soon on speaking terms with many of the common objects of their environment.

As rapidly as new relations become intelligible the student should be encouraged, during his studies, to collect materials and arrange them in the light of his new conception.

As the student grows in age and experience, the ideas involved in study expand, and more detail and greater range are taken into account. Whereas in the earlier stage variety of stones used in building were taken into account, later he may study: (1) the original locations of these stones (on map); (2) methods of quarrying; (3) wedges, powder, fuse; (4) dressing tools; (5) methods of shipment; (6) variety of uses; (7) polishing tools, etc. And through it all the student is becoming familiar with names, properties, and processes. In many places drawings or sentences are introduced in order to bridge gaps and insure connections. Or again the study may be bricks, tiling, etc., culminating in a study of all the stages, processes and uses of clay. So also in the field work there are a multitude of demands, if the work is to be most effective, for the collection and arrangement of materials. It would prove an interesting diversion to summarize the number of science generalizations which were made possible only through bringing together, out of time and space, collections of materials.

In the study of earth-surface types of topography we discover that certain forces have been at work molding this topography. There are certain marks by which the presence of these forces are recognized. Interesting groups can be made by collecting mineral materials, as marked and reduced by (1) running water — the variety of materials found along river valleys. (2) Wave action — variety of minerals, their forms and stages of disintegration, as found along a lake- or seashore. (3) Products of glaciation, etc.

Intimately connected with this work is the reproduction of type regions by models. In all instances the material is being used to convey some idea; it is arranged to exhibit some meaning, and the student gradually develops the habit of looking for meaning in materials.

Collecting under this incentive demands of pupils a definite purpose to insure the selection of materials that show some relationship. This working with materials develops, through sense-contact, a quality of mind-action that cannot be developed in any other way. The bringing together of materials from widely separate areas leads to the discovery of relationships that under all other conditions would remain undiscovered, and develops habits of looking for relations where previously they were unsuspected. By gaining some power in detecting obscure relationships the mind gradually gains a certain intelligent mastery over the two great obscuring factors, time and space, and is gradually able to grasp the organic connections of erosion forces, surface forms, and sedimentary rock formations.

So also with some working experience in the school museum the student soon gains some efficiency in the intelligent use of the magnificent collections in our endowed and municipal art, industrial, and natural-history museums. One of the great problems of the elementary and secondary schools is the saving of time. The course of study is already overcrowded, and new studies, which cannot be denied, are knocking for admission. The way out is through some method of study which will increase the working efficiency of the student. One of the ways of gaining efficiency is by giving the student an earlier independent working mastery in school work; less of artificial methods, and more toward stimulating student needs and desire; less of student drudgery, and more enthusiasm and life; less dependence, and more originality. And, above all, the riddance, of the elementary school, of the waste of time and the drudgery of expression is through having something real and vital to express, whether it be through language, reading, writing, color, modeling, or the actual things.

I. B. MEYERS.

THE UNIVERSITY OF CHICAGO,
College of Education.

A SERIES OF LESSONS FOR THE SIXTH GRADE.

THE following outline of work on the St. Lawrence basin is planned for sixth-grade children to be worked out during the autumn quarter. It was chosen both as a study of a typical river in the youthful stage of erosion and as a background for the history of the French settlements in America.

The aims in the work will be to develop vivid images, to assist in the intelligent use of maps and books, and to further the conception of physiographic processes as now at work, shaping and modifying topography.

Because of the approach of winter the field work must necessarily be done in the early part of the quarter. The following physiographic processes which obtain in the St. Lawrence will be worked out in the laboratory and in field trips:

Development of valleys: growth of a river — formation of gorge, flood plain, terrace.

Work of rivers: erosion, transportation, deposition.

Form of divides, shifting of divides.

A graded stream: formation of rapids, falls, and lakes; meaning of base level.

Wave action: drowned coast, building coast.

A trip will be taken to "Englewood on the Hill" to see the water parting between the St. Lawrence and the Mississippi Rivers. This divide is characteristic of those of the St. Lawrence basin generally, and so great has been the importance of these low divides that they will be emphasized. These have caused in part the shifting of drainage which has been so marked in the history of the region. The water parting between Lake Champlain and the Hudson is only 180 feet — only 208 feet above sea level. This fact, in connection with the evidence of the sea having covered the region of Montreal and south of it to a height of 600 feet, opens up a great picture of changed conditions there. It means that at that period the region included between the Atlantic Ocean and the Hudson, Richelieu, and St. Lawrence Rivers was cut off from the mainland entirely; in other words, that New England was an island. The low divides have meant much, too, from a historical standpoint. The divide between the Fox and the Wisconsin Rivers, Lake Michigan and the Des Plaines, Lake Erie and the Mohawk, Lake Erie and the Alleghany, Lake George and the Hudson, have all determined routes of travel and consequent settlements.

We shall visit Glencoe, Ill., where the work of rivers and wave action are well illustrated. A few of the children who can go away for thirty-six hours, at an expense of $5, will be taken to Starved Rock on the Illinois River — a trip of the greatest importance both from the geographic and the historic standpoint. These children will report to the rest of the class upon their return.

Upon these field trips questions arise which in some cases might be answered by repeated visits; but this is impracticable because of the distance of the places from the school. In other cases the processes are so slow that they may not be observed by the children. The laboratory is used to solve just these questions. It consists of a vacant city lot, and a hose fitted with various nozzles which modify the flow of water from a spray to a heavy stream. Here the children may work from two standpoints. If a question arises as to a given phenomenon in river action — as for instance, the formation of falls — they may watch the stream flowing over the ground, note the making of falls, and draw their conclusions. Or they may have a hypothesis for the formation of falls; they may then go out, arrange conditions to test the hypothesis, and observe what follows. A stream of water from the hose may illustrate in one hour the following points in river action: erosion, transportation, deposition, sorting material; making of a gorge, of falls, of rapids, and of lakes. They can see demonstrated the formation of a broad valley, with flood plain and meanders, terraces, ox-bow lakes, deltas, and base-leveling.

By digging a good-sized hole and filling it with water, wave action may be produced by agitating the water. Here the formation of a beach, cliffs, offshore sand reefs, spits, bars, and barriers may be illustrated. The effects of rising and sinking of land may be shown also by inserting a pipe under ground, through which, by draining, the level of the water may be lowered, or into which the hose may be carried to raise the water level (the relations remaining the same whether the land rises or water sinks).

In addition to the physiography the work will cover the study of the St. Lawrence as a unit of drainage, its location in North America, its area, and its comparison in these particulars with other rivers of North America. It will emphasize the peculiarity of its location on the extreme southern side of its own drainage basin, with seven-eighths of its drainage from the north, and with only Lake Champlain and Lake George and their outlet, the Richelieu River, draining from the south. We shall note the characteristics of the river, with its source and the remarkable widening into the sequence of Great Lakes, its rapids, their interruption to navigation, and the overcoming of these obstacles by the magnificent series of canals; the widening of the lower St. Lawrence into the chain of small lakes, known as Lakes St. Francis, St. Louis, and St. Peter; its final gulf-like breadth from Cape Range, below Quebec, to its end at the western point of Anticosti, where it expands to the width of a hundred miles. We shall study its tributaries; on the north numerous, but navigable only a short distance back from the trunk river, because of the invariable falls and rapids; on the south less numerous, but navigable and important because separated from adjacent river systems by very low divides, as at Rivière du Loup, where the headwaters of the St. John are but twenty-five miles distant, the old route of the war-parties of the Mohawks; the Chaudière rising close to the Kennebec, this being the route which Arnold took when he came from Maine to besiege Quebec; and the Richelieu with its lakes, rising very near to the Hudson, through which valley the tides of invasion swept to and fro during the colonial wars. Farther west are the Miami and the Fox, connecting the St. Lawrence directly with the Mississippi itself. The region, as a whole, would be considered as a great wooded area, comparatively low, and including myriads of fresh-water lakes. Professor Dawson says that this basin alone contains one-half of the fresh water of the globe.

The class will estimate the distances referred to above in length of the river and its comparison with other rivers, by reference to Longmans' atlas, and test their estimates by the scale of miles used on the map. Distance will be interpreted by estimating the time it would take to travel that distance by modern boat, or train, or primitive canoe.

North America will be modeled in sand, and the relation of the St. Lawrence to other drainage systems will be shown. This region will also be modeled separately for the sake of gaining better ideas of relations of its own features, the innumerable lakes, long northern tributaries, and infrequent southern ones.

The children should picture this region so vividly that, as they people it with the early French explorers, they may foresee their movements, their settlements, and the industries which the topographic conditions determined.

For instance, the Saguenay, navigable for seventy-one miles, and the good harbor at Tadanssac predetermined the settlement established there. Quebec, on its impregnable rocky height just beyond Cape Range, where the St. Lawrence narrows and where the St. Charles River joins the main stream, fulfils every requirement for an ideal city and citadel. Again, the Falls of Niagara prevented navigation. In time a portage had to be made about the Falls, and this necessitated two settlements, one at each end of the Portage — one at Fort Niagara on Lake Ontario, and whether at Fort Cayuga or a bit farther south, at Buffalo, is a matter of little import.

If the work has been vital to the children, they will have been brought face to face with difficulties, and will have asked questions concerning measurements, weights, length of time, and exertion of energy. All these are mathematical relations, and so much of number work must be correlated as to answer these questions.

Concerning the Niagara Falls alone, an immense amount of one's thinking is in mathematical relations, if it be clear-cut.

The falls have cut back 7 miles from the escarpment at Queenstown. What is their ultimate fate? They are now cutting back at a rate of 7.65 inches annually on the American side, and 26 inches on the Canadian side. If they continue at this rate, when will they reach Lake Erie and their history be at an end?

The Canadian falls erode 2 feet 2 inches annually. They are 3,000 feet wide and 158 feet high. How many cubic feet are eroded annually? When that is computed, and reduced to a form which is comprehensible — as, for instance, that it erodes enough material to cover a narrow-gauge road 1 foot deep for 42 miles — the children have something of an understanding of the work.

Over the Canadian falls 7,000 tons of water fall per second. This is four-fifths of the total amount. What is the total weight of the water?

Men measure the work of machines by horse-power. One horse-power is the force to lift 33,000 pounds up one foot in one minute. Men have found that the 7,000 tons' weight of water per second can be converted into energy to run their factories. What is the fall of water per minute over the Canadian Falls? Then in these falls 42,000 tons of water pass through 158 feet of space, the height of the falls. Find the horse-power of the Canadian falls. This is four-fifths of the whole. Find the horse-power of the two falls.

An ordinary steam dredge exerts 40 horse-power per hour. How do the falls compare with our mechanical methods of dredging?

One pound of Newport coal furnishes one horse-power of energy for one hour. The great manufacturing interests at Niagara have made the work of the falling water supply the place of fuel. Estimating eight hours per day, find the daily saving on fuel with Newport coal at $7 per ton.

The foregoing problems are given simply as illustrative of the need of arithmetical work in any part of the subject. The locks of the Sault Ste. Marie, the economy of the canal system, the work of the St. Lawrence in eroding annually, the mining interests of the Superior region, the estimate of time necessary to travel given distances at a given rate — all require the aid of mathematics to be intelligible.

In the minds of the children an immediate use for this work is in the making of a model of the St. Lawrence basin for the school. The model is to be of clay, then cast in plaster of paris and shellacked so that a stream of water may be made to run through it, illustrating the flow of the St. Lawrence, through the Great Lakes, over Niagara, to the sea. The horizontal scale adopted will be 280 miles to 1 foot, but to use this for the vertical scale makes the slope of land imperceptible, therefore for vertical distances the scale will be 150 feet to 1 inch. Because of the various considerations determining the scale which were beyond the children's experience, it had been worked out by the teacher, to be submitted to the children.

Below are given the measurements of the model, as an illustration of the number work involved, as well as the proportions of the resultant model:

TABLE OF DISTANCES AND MEASUREMENTS.

LAKE	ACTUAL DISTANCES		MEASUREMENTS ON MODEL	
	Length	Width	Length	Width
Superior	420 miles	80 miles	1 ft. 6 in.	3 3/7 in.
Michigan	345	58	1 2 11/14	2 17/35
Huron	400	70	1 5 1/7	3
St. Clair	25	20	1 1/14	6/7
Erie	250	38	10 5/7	1 22/35
Ontario	190	40	8 1/7	1 5/7

End of Lake Ontario to St. Belle Island, 1,116 miles; 3 feet 11 5/6 inches on model.

LAKE	HEIGHT ABOVE SEA LEVEL		DEPTH	
	Actual	On Model	Actual	On Model
Superior	602 ft.	4 in.	900 ft.	6 in.
Michigan	578	3 4/5	1,000	6 2/3
Huron	576	3 5/6	500	3 1/3
Erie	566	3 3/4	90	3/5
Ontario	240	1 3/5	412	2 3/4

ELEVATIONS.

	Actual	On Model
Laurentian tableland, north of St. Lawrence -	1,000–1,600 ft.	6 2/3–10 2/3 in.
Cape Tourmente - - - - - - - - -	1,920	12 4/5
Les Ebaulements - - - - - - - - -	2,547	17
Saguenay Mountains - - - - - - - -	1,800	12
Mountains north of Montreal, rising from the shore of Trembling Lake - - - - - - -	2,380	13 4/5

All measurements will be worked out by the children on the above scale, using the data on distances given by Professor Dawson in Stanford's *Compendium of North America,* Vol. I.

Besides computing the above measurements and making the wooden box to hold the model, much skill must be gained in portraying the region before the final model can be made. This skill will be gained through frequent modeling in sand, and quick blackboard drawing and modeling.

As the children are drawing and modeling, use will be made of pictures of the region. Descriptions will be given, that they may translate the symbol into real proportions and add to it, in thought, the color, sound, and movement in the landscape, as far as may be. In addition to the quick temporary sketches, a series of more permanent illustrations of the region will be made. The children will use different mediums suited to the demands of the subject, as pencil, charcoal, colored crayons, or paints.

The subjects which would cover the typical things of the region are given below, and as many of them will be illustrated as time will permit:

Chalk-modeling of views seen on field trips; typical scenes along the St. Lawrence, as: the shores of the gulf; fishing off the banks; Harbor at Tadoussac; views of the Saguenay; location of Quebec; views of the Laurentians at Lake Edwards in the heart of the mountains on the road from Quebec to Lake St. John; views of the present fort at Quebec; views of Champlain's fort; lower town and Levis from Dufferin Terrace; the long narrow farms, each fronting on the river, which extend from Quebec to Ste. Anne de Beaupré; Montmorency Falls and natural steps; views of Montreal; Notre Dame, Victoria Bridge; Mount Royal; the Laurentians as seen from Mount Royal; Thousand Islands; old fort at Frontenac, now Kingston; view of sand bar in harbor at Toronto; views of Niagara Falls; Niagara gorge and the whirlpool; fort at Niagara on the lake; the locks of Sault Ste. Marie; picture rocks of Lake Superior; industries: lumbering, fishing, the use of the water power at Niagara, and the great wheat-fields of the Northwest.

Written descriptions of places, unless done by the hand of an artist, so as to be very telling, have little power of arousing intense images or interest in children. But if they are planning to make a model of the gulf of the St. Lawrence, for instance, the utmost delight is felt upon finding some such prosaic but clear description as the following: "The New Brunswick shore of the gulf of the St. Lawrence is uniformly low and wooded. Rivers empty into lagoons formed by bars and spits of sand, but there are no shoals or rocks. The south shore of the St. Lawrence for a long distance from Gaspé is high and bold, for mountains rise up from the bank wooded to their summits, and there is little room along the bank except for small fishing hamlets," etc.

But for graphic, poetic descriptions the children cannot do better than to read from Champlain's *Journal of My Voyages*. Besides the picturing of the region, one gets intensely the spirit of the explorer as this new world first appeared to him. Champlain's *Journal* is published only in one edition, and that retains the old English print; therefore it would be necessary either to read it aloud or to have extracts reprinted. But this is one of the instances where a thing of real literary value may be substituted for mere text-book statements.

This brings us to the relation of the history and geography in the grade. The history for this quarter will be the settlements of the French along the St. Lawrence and Great Lakes, namely, at Tadoussac, Quebec, Montreal, Detroit, Frontenac, Niagara, Mackilimacinac, and Duluth; and will include the discoveries of Cartier, Champlain, Frontenac, Marquette, La Salle, and Tonty. The achievements of La Salle and Marquette carry us to the Mississippi; and still the story would be unfinished, so the *dénouement* of French possessions in America, the French and Indian war, will be briefly told, with few details.

The class will be encouraged to bring magazine pictures or articles associated with this region as a loan collection. The following reading matter will be put into their hands, and any which they think valuable they will catalogue as to title, author, and page. This catalogue would be really valuable, not because of its completeness, but as representative of the children's interests.

CHILDREN'S READING LIST.

TEXT-BOOKS: Longman, *Atlas;* Tarr and McMurray, *Geography,* Books I and II; King, *Geographical Readers;* M. M. George, *Little Journeys to Alaska and Canada;* McMaster, *History of the United States;* Higginson, *Book of American Explorers.*

Selected passages from the following: Carroll, *Illustrated Guide Book and Map of Quebec;* Baedeker, *Guide to Canada;* Chamber, *Guide Book of Quebec;* Stanford, *Compendium of North America,* Vol. I, by S. E. Dawson, Réclus, *Earth and its Inhabitants* (for pictures); Porter, *Niagara Book;* LeMoine, *Picturesque Quebec;* Sir Gilbert Parker, **[1] *Quebec;* Fiske, *Discovery of America;* Champlain, **[1] *Voyages;* Winson, **From Cartier to Frontenac;* Parkman, **Frontenac and New France under Louis XIV; idem,* *[1]*Pioneers of France in the New World; idem,* **The Old Régime in Canada; idem, LaSalle and the Great West;* M. H. Catherwood, * "Bells of Ste Anne," *St Nicholas,* Vol. XVI, p. 91, continued on p. 492; G. A. Buffum, "Winter Carnivals in Montreal," *ibid,* Vol. XII, pp. 284-87; W. S. Harwood, "The Great Lakes," *ibid.,* Vol. XVI, p. 195; "Canadian Scenic Splendors," *ibid.,* p. 145 (for pictures only); "Quebec," *ibid.,* p. 554: "Bicycling from Montreal to Ste Anne," *Outing,* Vol. XXXVIII, p. 493; * "Quebec," *New England Magazine,* Vol. XXI, p. 33; *Harper's,* Vol. LXXVII, p. 184; *ibid.,* Vol. LXIX, p. 197; M. H. Catherwood, *Story of Tonty.

TEACHERS' REFERENCES.

**U. S. Geological Survey,* and **Canadian Geological Survey,* of regions considered; Champlain, **Voyages;* Gilbert, **Monograph on Niagara Falls;* Réclus

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[1] Especially helpful.

Earth and its inhabitants, "North America," Vol. I; *idem, The Earth;* Le Conte, Scott, Geikie, text-books; Stanford, *Compendium of North America,* Vol. I, by S. E. Dawson; Shaler, *Our Continent;* "Niagara and the Great Lakes," *American Journal of Science,* 3rd Series, Vol. XLIX, 1895; Basil R. H. Hall, "Forty Etchings made from sketches with the Camera Lucida in North America in 1827 and 1828;" James Hall, "Niagara Falls," *Natural History of New York, Geology,* Part IV; Charles Lyell, *Travels in North America;* M. H. Catherwood, **Story of Tonty;* W. D. Howells, *Our Wedding Journey; idem, A Chance Acquaintance;* *Fiske in *Harper's,* Vol. XXV, pp. 65-107; Hinsdale, *The Old Northwest;* Drake, *Making of the Northwest;* Winsor, *Narrative History, Vol IV;* Fiske, **Discovery of America,* Vol. II; Blanchard, *Discovery of the Northwest.* "Quebec," *Canadian Magazine,* Vol. XVI, p. 554; "Newfoundland Seal Hunters," *ibid.,* p. 195; "Canadian Scenic Splendors," *ibid.,* p. 145; several articles, *ibid.,* Vol. X; "Quebec," *New England Magazine,* Vol. XXI, p. 33; "Bicycling from Montreal to Ste Anne," *Outing,* Vol. XXXVIII, p. 423; "Quebec the Crowned City," *Outlook,* Vol. LXVII, p. 521; "Historic Quebec," *Chautauqua,* Vol. XV, p. 422; "Canal System ot Canada," *ibid.,* Vol. XVII, p. 302; "Great Lakes — The Locks of the Sault Ste Marie," *Review of Reviews; Studio,* Vol. V, p. 200.

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It is a difficult undertaking to make a short list of the best books upon any subject, because some books are fully developed in one aspect, while others are of greater value in another. For this reason no two individuals would give the same list, and this which follows cannot be said to be the best in every particular, but has been found most useful in certain lines by the writer.

Teachers of geography in the elementary schools who have access to good libraries may find a wealth of geographical material, but those less fortunately circumstanced should possess at least three good books on the subject, besides the text used by their pupils — a physical geography, a physical atlas, and a general descriptive geography seem indispensable. We are now richer in physical geographies than in any other aspect of the subject, and many good physical geographies can be named. Davis's *Physical Geography* (published by Ginn & Co.; price, $1.40) or Mill's *Realm of Nature* (Charles. Scribner's Sons; $1.50) will be found valuable. In choosing an English physical atlas one is limited in range. Longmans' *New School Atlas* (Longmans, Green & Co.; $1.50) is the best for the price. For a general descriptive geography Mill's *The International Geography* (Appleton & Co.; $3.50) is excellent. This book has no equal of its kind in English. It is made up of contributions from seventy specialists, usually residing in the country that they describe; it is invaluable to any teacher of geography.

If one is able to extend one's geographic library, Stanford's *Compendiums* (published by Stanford, London) are excellent general geographies. This series is composed of two volumes on each of the continents except South America and Australia, which have one each ($3.50 per volume). The volume on the United States by Henry Gannett is very valuable. Herbertson's *Man and His Work* (London: A. & C. Black; $1) and Miss Semple's *American History and its Geographical Conditions* (Houghton, Mifflin & Co.; $3) deal with the human aspect of geography. Chisholm's *Commercial Geography* (Longmans, Green & Co.) has just been revised, and is a most comprehensive and valuable work.

Those desiring a more exhaustive bibliography, will find valuable lists in Mill's *Hints to Teacher and Students on Choice of Geographic Books* (London; $1.20); *Outlines of Geography,* with complete list of references, in *Teachers College Record,* Vol. XI, No. 2 (March, 1901), published by Columbia University Press (Macmillan & Co., agents).

CHILDREN'S TEXTBOOKS.

Maps: The topographic maps published by the United States Geological Survey (Washington, D. C.; 2 cents a piece per hundred) are of great value to the teachers and can be used by children in the upper grades.

Freye's *Complete Geography* (Ginn & Co.; $1.25). This book, at the time of its publication, was an entire departure from the books then in use. Later text-books have largely followed the plan adopted in Freye's *Geography*. It is still extremely valuable, perhaps more so to the teachers than to the children. Among its attractive features are the pictures, maps, and graphic representation.

Tarr and McMurray's *Geographics* (Macmillan & Co.; 60 cents per copy). These geographies are the most exhaustive text-books on the subject published in this country. They will be found very valuable, in particular in the schools where few books are accessible.

Supplementary readers: Carpenter's *Geographic Readers, On the Continents* (American Book Co.). These readers are an outcome of extensive travel on the part of the author that results in a certain vividness which appeals to the children. The industrial and historical aspects of the subject are given fullest treatment.

The Folios of Geologic Atlas of United States (25 cents) are very helpful to the teacher. Relief model of the continents of North America, South America, Eurasia, Africa, Australia, by Howells (Washington, D. C.), are the best that can be had. The set costs $150 — North America, $40; Eurasia, $50; South America, $25; Australia, $15; Africa, $25. The price is prohibitive for most schools. It is to be regretted they cannot be placed in every school.

Physical wall maps: Sydou, Habernicht physical maps ($10.50 per continent), or Rand, McNally & Co.'s physical maps ($3) for each continent.

Magazines: *Journal of Geography* (160 Adams street, Chicago); *National Geographic Magazine* (Washington, D. C.).

Z. B.

BOOKS RECEIVED.

German Composition. By B. MACK DRESDEN, Instructor in German, State Normal School, Oshkosh, Wis. Chicago: American Book Co. Pp. 68, 12mo; cloth. $0.40, *net.*

Bunte Geschichten. By E. M. STOLZE. Chicago: American Book Co., 1903. Pp. 98.

Field and Laboratory Exercises in Physical Geography. By JAMES F. CHAMBERLAIN. Chicago: American Book Co., 1903. Pp. 127.

Annual Report of the Smithsonian Institution, 1901. Washington: Government Printing Office, 1903. Pp. 452, 8vo; cloth.

Annual Report of the Smithsonian Institution, 1902. Washington: Government Printing Office, 1903. 8vo; cloth.

The Insect Folk. By MARGARET W. MORLEY. Boston: Ginn & Co., 1903. Pp. 204, 12mo; cloth.

Two Little Savages. By ERNEST THOMPSON SETON. New York: Doubleday, Page & Co., 1903. Pp. 552, 12mo; cloth. $1.75, *net.*

Teacher's Manual, to Accompany Lessons in Language and Grammar. By HORACE S. AND MARTHA TARBELL. Boston: Ginn & Co., 1903. Pp. 68, 12mo; cloth.

Teacher's Geography Manual, Elements and Grammar School. By ALEXIS EVERETT FRYE. Boston: Ginn & Co., 1903. Pp. 78, cloth.

Scott's Lady of the Lake, Introduction and Notes. By J. CHALMERS, President South Dakota State College. New York: D. Appleton & Co., 1903. Pp. 181, 12mo; cloth.

Literary Leaders of America. By RICHARD BURTON. Chautauqua: The Chautauqua Press, 1903. Pp. 316, 12mo; cloth. $1, *net.*

An introduction to the personalities and work of the leading American writers — Irving, Cooper, Poe, Hawthorne, Emerson, Bryant, Longfellow, Holmes, Whittier, Lowell, Whitman, Lanier, with selections from their writings.

The Evolution of Industrial Society. By RICHARD T. ELY. Chautauqua: The Chautauqua Press, 1903. Pp. --, 12mo; cloth. $1.25, *net.*

Many of the great problems of the day are considered — "Competition," "Social Progress and Race Improvement," "Monopolies and Trusts," "Possibilities of Social Reform."

The Ship of State. By Those at the Helm. Boston: Ginn & Co., 1903. Pp. 264, 12mo; cloth. $0.75, *net.*

The book consists of a series of articles by prominent men, and deals with all the important departments of our government. Mr. Roosevelt has written a chapter on the presidency, Mr. Lodge on the senate, Mr. Long on the navy.

Elementary Plane Geometry. By ALFRED BAKER, Professor of Mathematics, the University of Toronto. Boston: Ginn & Co., 1903. Pp. 146, 12mo; cloth. $0.50, *net.*

The author approaches his subject from the inductive side, and thus breaks loose from the limitations of the deductive and purely mathematical method of treatment. Working with accurate measurements and nicely adjusted instruments, the pupil makes for himself the laws arbitrarily stated in most text-books.

Natural Number Primer. By DAVID GIBBS. Chicago: American Book Co., 1903. Pp. 107, 12mo; cloth. $0.25, *net.*

This primer teaches the most elementary ideas and forms of number and of language at the same time. There are abundant illustrations and very simple drawings which serve as models for the child.

Provincial Types in American Fiction. By HORACE SPENCER FISKE. Chautauqua: The Chautauqua Press, 1903. Pp. —, 12mo; cloth. $1, *net.*

A study of American types as they have been portrayed by novelists whose works have received permanent recognition.

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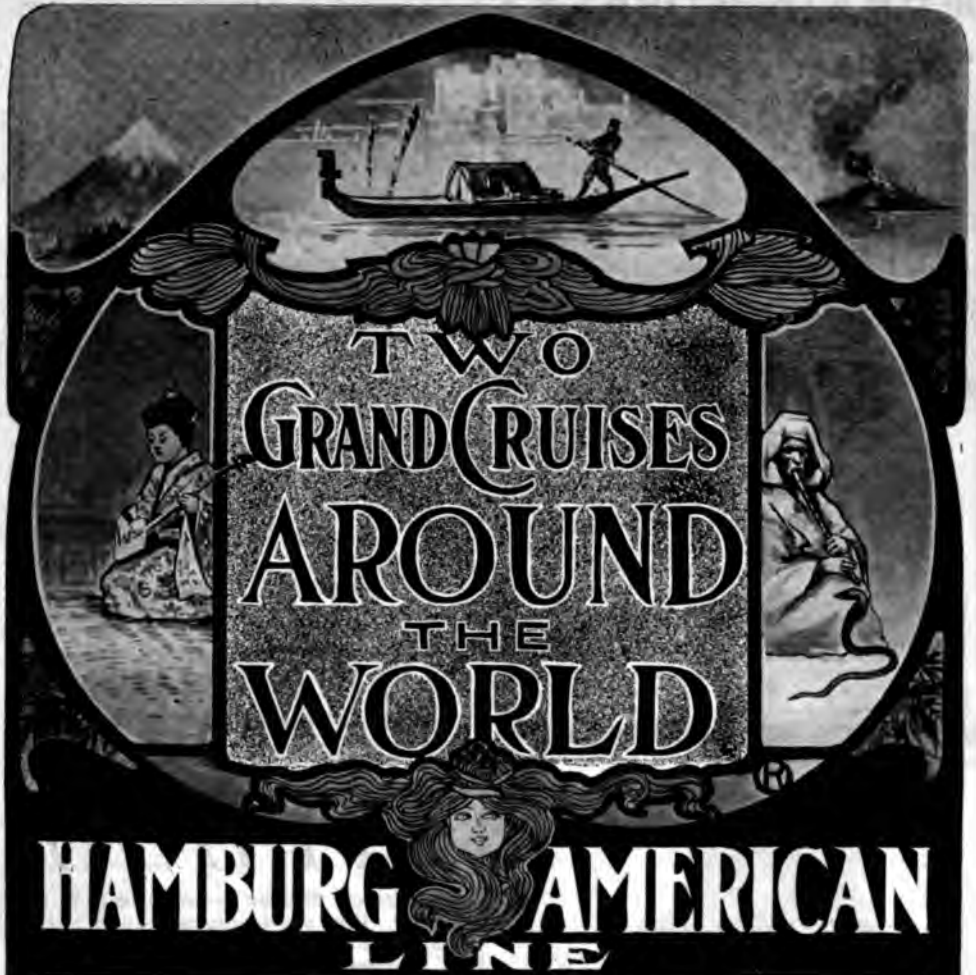

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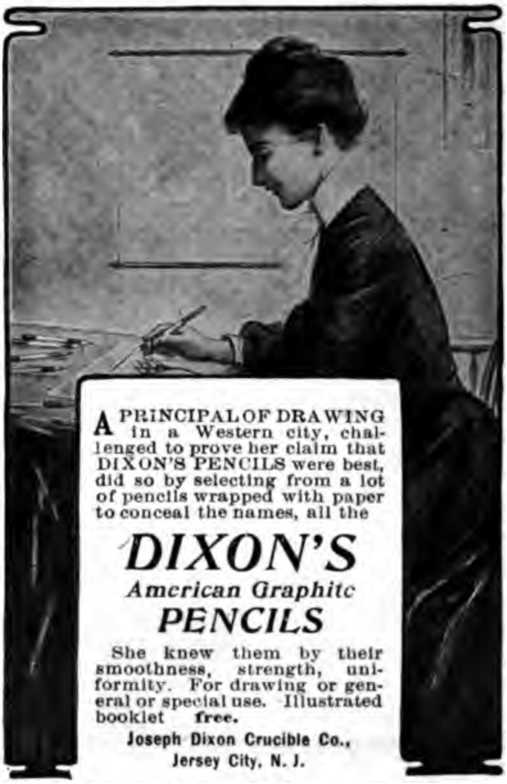

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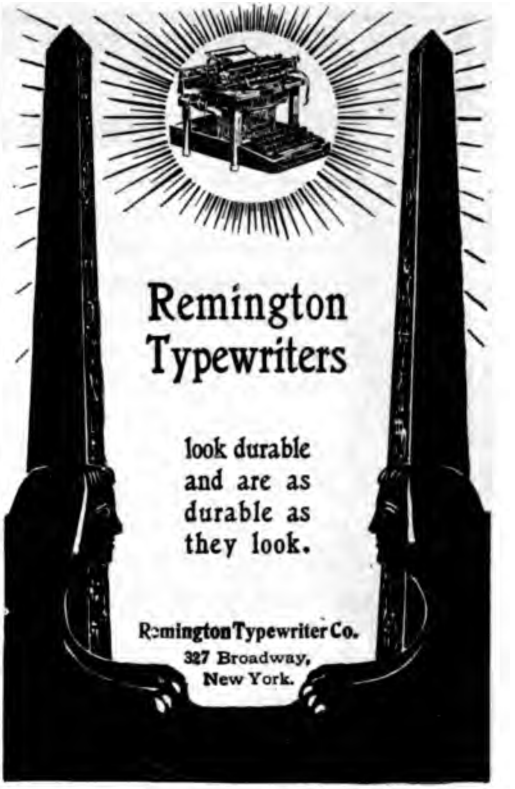

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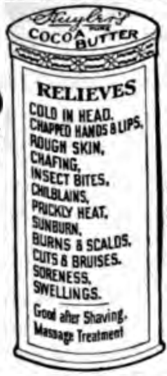

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CONTENTS FOR FEBRUARY, 1904

THE BASIS FOR A PARENTS' ASSOCIATION - - - - GEORGE H. MEAD 337
A PLEA FOR THE INCONSPICUOUS CHILD - - - FRANCES CRANE LILLIE 347
ON THE MORAL TRAINING OF CHILDREN - - - - GUY ALLAN TAWNEY 354
THE SOCIAL CHARACTER OF CONSCIOUSNESS AND ITS BEARING ON EDUCATION - - - - - - - - - - - - - - H. HEATH BAWDEN 366
THE PLACE OF GENERAL IDEAS AS CONTROLLING FACTORS, KATHERINE B. CAMP 377
PREREQUISITES FOR LEARNING TO READ - - - - DELLA JUSTINE LONG 382
ASSIGNMENT TO FIRST GRADE - - - - - - - - FRANK W. STAHL 385
A STUDY IN ARRESTED DEVELOPMENT - - - - SUSAN WHIPPLE LEWIS 387
SOME FUNDAMENTALS IN THE TEACHING OF WRITTEN COMPOSITION ELIZABETH KEMPER ADAMS 391
FUNDAMENTAL CONCEPTS OF ENGLISH GRAMMAR - - - A. A. FARLEY 407
ARRESTED DEVELOPMENT IN THE STUDY OF LANGUAGE, LAURA T. BRAYTON 412
INTROSPECTION AND FIGURATIVE ENGLISH - - - AMY ELIZA TANNER 415
THE HISTORY OF THE VERNACULAR IN EDUCATION - IRVING E. MILLER 418
FIRST HELLENIC EDUCATIONAL CONGRESS AND SCHOOL EXHIBITION, ATHENS, 1904 - - - - - - - - - - - - - - - - - 435
THE ROOPER MEMORIAL - - - - - - - - - - - - - - - - - 436
BOOK REVIEWS:
Radford: King Arthur and His Knights, PORTER LANDER MACCLINTOCK, 437; *Cooley-Webster:* Language Lessons from Literature, LUCIA JOHNSTON, 439; *Kemp:* History for Graded and District Schools, MARY A. CROWE, 440.

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THE ELEMENTARY SCHOOL TEACHER

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THE BASIS FOR A PARENTS' ASSOCIATION.[1]

I CONFESS to a feeling of bewilderment when I attempt to state to myself the duties and privileges of a parents' association. I know that I am not alone in this feeling, although there have been parents' associations before this, and though two such organizations have been taken up into this one. For, however admirable these organizations have been, they have not yet succeeded in making plain to the plain parent the exact function of these bodies. This is not said by way of criticism of anybody. I am in much too humble a mind to be critical. I am merely trying to voice the ignorance which most of us would have to express if asked for a definite statement of the ground of our being here in the capacity of a parents' association.

This bewilderment, like Gaul, may be divided into three parts: first, that inspired by the old school; then, that due to this school; and, finally, that with which the child oppresses us, when we conscientiously try to face our responsibilities to him.

The school used to be a thing apart. It stood in an isolation that was guarded by traditions as old, many of them, as our modern world. Its business was to grind information into the child, and perfect him in the simple methods of dealing with words and figures. It had its own methods for doing this, that were directed by a class apart, which wanted no assistance from the home, provided the pedagogue was clothed with sufficient authority by the community. The school, however, stood for something else beside the three R's. It was an institution within which the child was to learn obedience to the sovereign state that had placed him within the school and subjected him to the ferule of the teacher. It was the gateway to the power that came with knowledge, and the child's introduction to a social institution that stood outside of and transcended his home.

---

[1] An address delivered by the president of the School of Education Parents' Association, Chicago, December 17, 1903.

The parent's attitude to this institution was and remains today a very contradictory one. He cherishes it as the proudest heritage from his fathers, the characteristic thing in American society, that which educational commissions come over from the other side of the water to examine, and which seems such a very curious thing to them when they get the school under their eyes. As a general thing, the parent supports it generously out of his pocket, and supports it against the world, and even against his own children.

But, on the other hand, he is a merciless critic. He abuses the school and its board and its teachers. Of course, a great deal of this curious combination of attitudes can be explained by the peculiarity of man's nature, that is constitutionally "agin" the government and all its works — the very government which he has helped to constitute, and for which he is willing to give his life. Psychologically, one is not apt to exaggerate the relief to the mind which is obtained by criticism, and a free people will be the last to surrender the right thereto. It stands to reason, furthermore, that an institution which, like the school, stands apart, with the sign displayed upon it "Hands Off," necessarily makes itself a mark for such criticism.

However, this critical attitude is something different from that which men hold toward their government. Criticism has become the method of government. Representative government by means of parties is nothing but a government by discussion, or by, what is the same thing, mutual criticism, in which Robert's rules take the place of the noble marquis's. But there is no organic place provided for the parent's criticism of the school. It is not subject to any rules, and is therefore wild and uncontrolled. The school is not governed by mutually destructive criticisms; it is merely harassed by it. It is governed by itself, in accordance with the tasks which it has undertaken. It is true that enormous advance has resulted from even this uncontrolled criticism, but the progress has taken place inside of the school, when it had to recognize a pressure that had become unavoidable. The public that made the criticism and was responsible for the change did not help to work out the change nor feel the responsibility of the criticism. With reference to the school, the parent has had the misfortune which belongs to a perpetual opposition — the misfortune of making continual attacks and never facing the responsibility of the reconstruction which the attacks imply. It is inevitable that the attitude of the parent under these circumstances should fall under these two contradictory heads: either that of support *contra mundum,* or that of uncontrolled, and frequently of unedifying, criticism. Experience has shown that changes take place when an unusually big row has taken place; and the moral is, if you want a change to take place, make your row big enough. It is not the particulars of your attack that count — they belong to the pedagogic experts; you won't be admitted to that discussion anyway, and your judgment would be thrown out of court if you were. Confine your efforts to making the present situation unendurable, and leave to the doctors and dominies the expert task of getting out of the difficulties that you have succeeded in creating. When there are two sides to the question, as there normally are, there result two rows on opposite sides. For example, we abuse the school for its arid methods and abstract subject-matter. "In the midst of a modern world it remains in a cloistered mediævalism. Our children's minds are dried up. They come nowhere in the course into contact with reality. The school has become a great machine for grinding in the cheapest and most trivial parts of our culture, while the essential things are wholly omitted, not to mention the unnatural method of controlling the child's mind and conduct." When, in response to this popular demand, manual training, and cooking, and sewing, and clay-modeling are introduced, an opposing uproar is raised over the money spent on the "fads and frills" of education, and the three R's become at once the solid foundation upon which alone successful endeavor can be built, and the school the place where this must be laid.

From the standpoint of this public school, the duties of the parent are to provide children for the school and the means of conducting it. His privilege is that of the uncontrolled criticism of the daily press and the political campaign. It seems to me that the exercise of these duties and privileges is a somewhat bewildering program for a parents' association. It may be suggested that the parent may come in from this outside position with reference to the school, and that by means of a parents' association; that he may familiarize himself with the problems of the school, and speak as one having authority and not as the daily-press scribes. There are two things that occur to me to say to this. Most of us are not able or willing to make of ourselves pedagogical experts, who could speak with authority on the questions of curricula and school methods *per se*. We are fundamentally interested in our children's education and experiences in school, but that interest does not make pedagogical experts of us; nor is it possible nor desirable that it should. If the mere fact of intelligent and consecrated interest in our children's welfare in the school does not put us into any other relation to the school than that of a tax-paying electorate, if it can do no more than add acid to the ink when we write to the papers under the caption of "outraged parents," then there is no especial *raison d'être* for a parents' association. The second thing, I wish to say to this suggestion, is that it is only in part that the pedagogical expert decides such questions as manual training *versus* the fad and frill, the parents accomplish results in no small part by stirring up the political waters in which others beside themselves may fish. If a body of parents knew what they wanted in the average public school, they would stand a better chance of getting it by making a political organization of their association than by becoming pedagogical experts; and that would be as illegitimate as the other would be unpractical. To sum this up: If the intellectual life of the school is without connection with the home, the school's organization, its theory and practice, will be independent of the home, and the school's financial and political dependence upon the home does not make the proper basis for a parents' association.

The implication of what has been said is that the proper basis for a parents' association is the natural interest which people have in the life and development of their children. While this cannot be used to make pedagogical experts out of people, it is actually the basis for a great deal more than half of the average child's education. There is no need of repeating the commonplaces about the influence of the home upon the child. It is true that most of these commonplaces have to do with the heart rather than with the head. I have heard an educator maintain at some length that the character was to be formed in the home and that the intellect was to be trained in the school. Still it is getting to be increasingly difficult to distinguish between character and intellect, especially in their training, and the training of the mind in its narrower sense is felt to be generally dependent in no calculable degree upon the more intimate environment of the family. This training is not going to be directed by any conscious pedagogical theories, but it is going on, and is aiding or thwarting that which is taking place in the school all the time. What is wanted is a school in which, in some fashion, the social life of the home may be a part of the life of the school. The vital connection between the school and the home must be social. I do not mean that this relation should not be the ground for most serious thought; but that the home ought to be related to the school, in some real sense a part of it, simply because the children are members of each organization, not because the parents are politically responsible for the existence of the school, nor because they have educational theories.

There is another current conception of the connection between school and home which seems to be as unreal as the others are unpractical. The school may undertake to be the whole thing. It may be assumed that a judicious combination of sweet smiles and potted plants, and the homely arts of cooking, carpentering, serving luncheons, gardening, and sewing, can be used to provide, not only the means and lubricants for school work, but also an ideal home atmosphere. The home, then, should go to school along with the children, and get inspiration, and incidentally learn to carry on the work of the school in the house. In this case the home is, of course, the mother. There is no doubt that home and school have learned and will learn a great deal from each other, but this mutual helpfulness has not served in any way to deprive either of them of its individuality. Neither the school nor the home can sit at the feet of the other, and mere adventures of groups of parents into the school for purposes of observation and edification do not offer any essential reason for the existence of a parents' association.

The school to which we send our children has undertaken to leave the attitude of the institution apart, and to take the same view of the children which belongs to a normal home. While it must be more conscious of the methods that it uses in instruction than the home can well be, it hopes to recognize the intellect and interests of the children as they actually are. It has therefore abandoned the privilege of being a law unto itself, and, though its methods call for the pedagogical expert, its results are open to the criticism of the plain man. But it remains true, here as elsewhere, that criticism without responsibility is uncontrolled and unprofitable. And I am myself bewildered when I attempt to state what this responsibility is and how it is to be exercised.

I do not see how the school can accomplish what it undertakes, unless it has relations with the family, which is the habitat of the child; and yet, as the child advances from the kindergarten to the higher grades, the demands of the curriculum constantly increase, and the tendency to restrict the view of the school to the child's scholastic achievements grows. It becomes increasingly difficult to take into account the social environment of which the child is a part. As far as I can see, the school cannot go to the family. The home must go to the school. But we cannot go as scholars, nor yet as mere observers, if the relation between us and the school is to be a vital one. I do not know that the situation is made any easier by the fact that the problem is so far from solution from the standpoint of either the school or the home.

This brings up the third ground for bewilderment—the whole question of our duties to our children. I have, of course, no intention of adventuring upon this troubled sea. I merely wish to point out that the presence of our children in this school, and our presence as members of this parents' association, carry with them the privilege, and therefore the duty, of identifying ourselves with more of the life of our children. I take it that parents who send their children to a boarding school in some sense shift from their shoulders the responsibility for the immediate social environment of their children, and gain the advantage, which is sometimes a questionable one, of making the school and the home of the child one, and thus breaking down this middle wall of separation of which we have spoken. Now, if this school succeed, it must accomplish in a more normal fashion what the boarding school attempts. But we are unable to put the responsibility for the success solely upon the school. If we wish to keep our children at home, and wish further to have them go to school, and finally to have the whole life of the child all of a piece, as it is in a fashion in the boarding school, we have at least to relate ourselves as much to the work of the school as the home life of the boarding school does to its scholastic life. If this can be accomplished, I suppose that no one will deny that the result must be as much more admirable than that which is attained in the boarding school as the home is a more admirable place for the child than the boarding house.

Out of the vagueness of the situation so much seems to me sufficiently definite: that in the ultimate solution of the educational problem the home will have as essential a part as the school; that in working out the problem the school and the home stand upon the same level, each representing one phase in the child's whole life; that the common ground that they have between them is the social consciousness of the child, which this school undertakes to make the basis of its training, and which is the very content of the home life: that the relation between the parents and this school is not one that has to be manufactured, but one that needs only to be recognized and allowed to develop. It is, however, more difficult to recognize something that has in the past escaped us than to manufacture something out of whole cloth: for the recognition involves a change of attitude. It would be much simpler and easier to construct an artificial program of an interchange of civilities and mutual criticisms between the home and the school than it will be to make ourselves realize the common, everyday relations between the home and the school, which are taken for granted, and therefore ignored. There is, on the other side, an advantage in this fact that the relation already exists and does not have to be constructed. It makes very little difference with what we begin, and there is no necessary prescribed order for our continuance.

If, however, we are to realize and emphasize the common ground between the home and the school — the social consciousness of our children — we must be able to follow them into the school, and comprehend there what we feel we need of the methods and principles of the school; and we must have some organ by which we can react back upon the social life of the school. For these purposes the constitution provides for two committees — an educational committee and a home committee. It is the function of the first of these committees to enable the parent to follow his children into the school, without interfering with the school work, and to become acquainted with what is essential for his comprehension. It will be the function of the other committee to bring out and emphasize what is common and needs further development in the mutual life of the home and the school. There is a social committee, to take charge of the gatherings together of parents and teachers and children. There is a finance committee, that will enable us to put our hands to the wheel, if any specific occasion arises that commends itself to us. These are, however, all but organs which imply activities, but cannot create them. They are means which we may use, but they are not congressional committees whose reports we may receive and merely accept or reject. They are not there to report on conditions and make recommendations for our action. They are the simplest devices that could be presented to enable the home and the school to get together, and in the end to live the life that is common between them.

It has been indicated above that if this relationship actually exist between the home and the school, it makes no difference at what point or points we undertake to become conscious of it. I shall be excused, then, if I present without order some of the situations in which the home and the school are dealing with the same problems, and where, therefore, they should be conscious of their mutual activities in a common life.

The physical being of the child permits of no discriminations between life in one place and another. His health belongs to all his comings-in and goings-out. It is natural, then, that about children's diseases the home and the school should come closer together, or at least earlier together, then elsewhere. Mutual precautions against the spread of contagion, mutual conscientiousness in protecting the lives of others, can arise only when the connection between the house and the schoolhouse is made by interrelation that is even closer than postal-card reports. Day by day we learn more of the possible control which we might exercise, not only over the course of disease, but over its appearance at all. It is absolutely certain that the existence of a very large part, if not all, of contagious disease is due simply to the isolation in which certain parts of the community are able to encase themselves — isolated milk and tailoring industries, isolated transportation undertakings, isolated homes and isolated schools. The separation of the people and the mutuality of interests is the reverse side of the shield in every case of epidemics. From the standpoint of health the quickening of a common consciousness is the most important practical step that can possibly take place.

There is another phase of the matter of health which seems to me peculiarly fitted for consideration from the standpoint of the common life of the school and the home. I refer to the instruction which our children get, or do not get, upon the subject of reproduction, and the various experiences, ranging all the way from the healthful to the pathological, that are generally referred to as belonging to the age of puberty. In the large amount of discussion, necessary and unnecessary, upon this stage in childden's development very little has been said upon the unnatural separation in the child's life between the home and that dominated by the school. I would venture to affirm that a cordial and intelligent common attitude and reaction to these questions by the home and the school would eliminate 99 per cent. of the whole problem.

In the whole question of the relation of the child to those about him, and the morality that depends upon it, it is a contradiction in terms to assume that normal training can take place from any other standpoint than that of the common social life that belongs to both family and schoolroom. I can but refer to the large number of activities, which used to belong to the home, that played so large a part in real education of the child, and which now must be replaced in some way in the school. The picture of them is vividly drawn in Mr. Dewey's *School and Society*. I merely wish to point out that the readjustment cannot be made entirely in the school. It implies an interaction of the child's school and his society.

In closing, I wish to point out that this great and admirable building in which our children's school is housed presents opportunities for organizing the social life of not only the younger, but the older children, that I think we have hardly realized. Its gymnasium, its lunch-room, its art-rooms, make it conceivable that the building may become a center for the co-ordinating of the social life of the older children that presents so many difficulties. If we can gather the outside life of our children in a large degree about the school, and enter into intimate relations with it, the ground would be cleared for dealing with questions that are almost hopelessly baffling at present.

I have merely attempted to suggest a few points at which the recognition of the common ground between the home and the school must be of incalculable benefit to them both, and therefore to the child. I hope that, as concrete suggestions, they may give further content to my thesis that the basis for a parents' association must be found in the common social life of the school and the home.

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A PLEA FOR THE INCONSPICUOUS CHILD.

In regard to the ideals of thoughtful parents for their children there is little variance of opinion. Our children must be well and strong; they must think clearly, act straightforwardly, and have a chivalrous care for the weak. We are also in substantial agreement as to the normal child's part in attaining these results, and as to what should be our part in our children's lives. The joyous activity, varied by moments of quiet thoughtfulness, the answering of the call of the big heroic world, and the clinging to the protective and cherishing home, all have a part of the day allotted to them, and we are here to see that they balance without strain or stagnation.

With this idea in view, we want to plead for the inconspicuous, or, shall we say, the undecorated child, begging all who have influence to lift an unnecessary burden from our children who are necessarily strained and overburdened by our complex civilization.

There are three evils arising from conspicuousness in children. The first is the injury done to the future worker through cultivation of the childish vanity which seems so innocent. We do not say to our children that we want them to be lauded for their immaculate and stylish garments or exquisite manners, but we work more for these things than for almost any of the real virtues. And the broken-down mother is usually the mother of the elaborate child. As a reward she has the exclamations of total strangers: "The beautiful child!" "What delightful manners!" or more often, "Ain't he cute!"

I have said "the future worker," for in our day all must work, or at least have a pretense of working — a pretense which is scrutinized by a sharp-sighted public more carefully, and perhaps more bitterly, every day. What is the effect on a child's quiet industry of a parent's passion for having him seen and admired? If we watch the child whose vanity is thus overfed, we shall soon know that his soul is crying out in every action against his being seen to be admired. Moreover, what does he think, if the result is anything more than discomfort? Boy and girl think alike: "Let us dress more and have more people look at us."

Fortunately for the boy, the father steps in and says "No!" because he knows that happiness and usefulness do not come to the boy and man that way. This has not always been so. Man's instincts for self-decoration are as great as woman's, as the portraits of our male ancestors, the costumes of barbarians, and the uniforms of modern times amply testify; but from his experience he has found self-decoration incompatible with the freedom of muscular activity and the unconsciousness necessary for the best development of the boy. So the boy has not nearly the restraint of clothes, physically and spiritually, that the girl has, though the happily departed Lord Fauntleroy did darken his existence for a while.

How different it is with the girl! Her desire to be looked at is fostered to a greater or less extent by every father and mother, until the poor little soul begs for her shackles, as the little Chinese girl pleads to have the frightful bandage applied to her feet, because "other little girls have them, mother!"

Besides the nervous control on the child's part necessitated by the actual process of being dressed, she must not play so hard or she will muss or destroy an expensively made, or exquisitely laundered, dress. We are so constituted that with all the money we may have we cannot help feeling badly at seeing an expensive thing ruined. Our remarks to her, then, are calculated to render her self-conscious and restrained. And so, as a little child, healthy physical activity is denied her, and the unconscious unfolding of her mind as well, on account of the wrong construction and elaborateness of her clothes. Listen to the conversation between little girls. It is very different from that between boys—all gossip and small interests, as they walk up and down sedately in the school yard, holding on to broad flapping hats with one hand, and over-caressing the moment's best friend with the other. What else are their dear little heads occupied with when their muscles are so still? Alas, that is the root of the evil. They are planning for more admiration very often, and as they grow up toward the high-school period they are frequently possessed with a very demon of desire for applause.

This wish to be seen and admired has resulted in girls' not only not working seriously themselves, but even in their being considered a pest by educators who have at heart the cultivation of the minds of young people, because of their incessant appeal to the boys when near them, and their constant effort to divert the boys' attention from their work to themselves. This, of course, weakens the intellectual effort of the boys, and sends the blood and force to the parts of their anatomy which should be sleeping. The plainer girls who catch the fever and have not the looks to attract, cultivate the most conspicuous mental trait, which is memorizing, the shallowest intellectual achievement. Quiet work of any kind, pursued alone for real love of it, is almost unknown among girls.

What is the solution of this problem? Sometimes the girls are caught and segregated. Eastern educators are almost unanimous in condemning co-education, and even a teacher in the Manual Training School of Chicago says: "Give me my boys free, during their working hours, from girls' influence. Their sweaters and dirty hands go with real enthusiasm, unknown among the boys of other high schools with their high collars and flashy ties and minds full of the effects they would produce on the girls. Oh, that kind is dispiriting!" And yet we western mothers are convinced that the most necessary thing in a girl's education is to know boys and more boys; and in a boy's, to know girls and more girls. For one day this wide knowledge will make a wise choice possible and a tolerant and sympathetic helpmate.

The next point I wish to make is the unnecessary and painful antagonism between boys and girls resulting from making sex conspicuous in childhood.

Wherever in the world the difference between men and women has been exaggerated by dress and custom, there has been a difference in morality that is fraught with pain for the women. This burden of grief for wives and mothers steadily decreases as we go westward from the Orient, until here in

America, where we have unconsciously obliterated many differences, we have the highest average morality, and the highest average happiness for women. This partial obliteration of differences in sex-customs has been unconscious, and I would make it conscious; yes, I would even make it a religious movement, because our little girls' welfare is involved, and the purity of our sons.

What is the temperamental difference between boys and girls that we should press our conventions down so hard, even on the baby in long dresses? Dr. Dewey says no one really knows, as the differences are so overlaid with conventions that we cannot tell what is fundamental and what is not. Would it not be a beautiful experiment to let them develop in unconscious freedom and find out? But that is a digression.

Little children who naturally know no more differences in their play than do kittens and puppies are made to learn and obey sex-conventions from the moment they go out into the world, and any slip in these conventions is greeted with scorn and laughter that bring a flush of embarrassment to their puzzled little faces.

We all know that if two children are treated differently, they will usually antagonize each other, because each feels that he must defend his treatment. Therefore, if you are with children much, you will constantly hear among them discussions as to the relative merits of boyhood and girlhood. These discussions seem trivial, even when big brothers and sisters, and fathers and mothers, share in them; but they are not trivial. It is not trivial to hurt the feelings of a child by telling him that sex restricts his activities, when there is no reason for such restrictions; nor is it without serious results that we set our boys and girls against each other, instead of holding them close in sympathy. Moreover, if boys and girls were always together in childhood, when that attraction comes that is characteristic of adolescence, there would not be so painful a readjustment to the new force as there is now, when they begin their youth with so few experiences in common, and antagonistic sets of conventions. The irritation of these childhood conditions is more severe in the case of the girl, because there are more actual restraints for her. How often is the physical redundance that is sexless repressed by scornful or chiding elders, when a little girl is told she cannot share those beautiful outdoor activities with her brothers when she is grown! A healthy little girl does not see enough movement in indoor life. And in order to encourage her natural craving for the freer life outdoors I believe in resurrecting all the old stories of heroic womanhood, when little girls are in their heroic mood, and quietly downing the big boy's scorn with them. Is not the burden of a woman's life heavy enough to demand our most serious consideration as to her preparation for it? Should not her childhood be quiet and serene, with much muscular activity, and a divine thirst for knowledge cultivated that will keep her mind and body too busy for her to sink into the petty life of most of our girls?

Of course, I shall be criticised for making girls into boys — as if that were possible. Oh, the dear, attractive, boyish little girl! How her father loves her, and how sound and sweet she is! What real child-lover admires the prematurely feminine product with her airs and graces? She is, indeed, a sad sight to those who wish her well. Still we cannot put all boy's clothes on girls, and thus keep the human young together in their work and play. I wish we could. Why should we tell the sexes apart before they realize that they have a sex? But we can more nearly approach the boy's healthful spirit in our girl's clothing.

I was criticized, too, some time ago, for wanting to reduce all girls' apparel to a dead level of monotony and allowing mothers no originality. But look at the boys and their fathers — all wearing hats, coats, and trousers alike. Are they not individuals to us? And are they not handsome to us? What mother of boys believes them to be less beautiful than girls? The human young, like all other young, possess the charm of childhood. It does not need a gold frame to attract us. Pictures nowadays are almost always framed severely. This same soberness and severity in clothing throws childish beauty into high relief — and the child does not know it, as our boys testify. Then, when we let them choose their own bit of color in sweater or tie, and keep our wicked and inartistic hands off, we have tampered with nature's sweet and holy product as little as may be.

What would be the result of an atmosphere free from sex-antagonism, free from childish vanity? Should we have the "Vampire" who tramples on all human ties to get her will of men, or the hard-faced fighting woman? I think not. It would be our high-spirited and clean-souled American girl—the most attractive girl in the world.

My third point is the immorality of the display in dress of our social position and wealth.

One day I said to a ten-year-old boy: "Would you like to dress in your Sunday suit and ride your new bicycle down where little boys have no Sunday suits and bicycles?" "Yes, I would," he answered naïvely, and flushed as he added: "I know it is not very nice, but I would like to do it." Of course, I blessed him for his frankness, and for the fact that he saw his position was wrong.

Our country is a democracy, and democracy is another word for Christianity, as far as the neighbor is concerned. Do we love our neighbor as we should when we flaunt our wealth before his tired eyes and cultivate in our children and others a desire to do likewise? And aren't too much cleanliness, too much order, too much manners, too much good English, questionable ethics in this regard? If there results from them undemocratic priggishness, and a feeling of superior social position, their value is certainly to be doubted. The boy who wants to show off his Sunday suit and bicycle becomes, perhaps, the man who for the sake of social prestige feels he must belong to clubs whose luxuries he cannot afford, or have wealth to exhibit in other inglorious ways. Is it not strange that there are not more anarchists, and bullying labor leaders, whose desire it is to get even with people who spend money so heartlessly in display before the poor and suffering? Is it our fault that they do not rise up and destroy us, as some of them would?

What is to be done? Fortunately for my hopes, I am not a voice crying in the wilderness. The feeling against complex lives for children is rising with gratifying rapidity; and, joy of joys, simple clothing for children is even becoming fashionable.

Miss Addams says the wealthy are the standardizing class.

What they do is followed, to the extent of their purses, by all the rest of the world, all the way down to the poorest slum-dweller. The less money there is to follow in your footsteps with, the greater the strain, and the greater the sacrifice of the really important things — nourishment, sunshine, cleanliness, order. Therefore, for the sake of the children we influence, as well as for all other little children, would it not be worth while to select with greater persistency than ever the simple, durable clothing, and have our children a little below the average display, rather than above, since they must mingle with their fellows? Unadorned, sweet, and clean childhood appeals to all child-lovers; and we wish none but child-lovers to notice our children. Let us build a wall of inconspicuousness about our young people's lives. Let them not appear too much in public places; and then when they do appear let them be so mouse-colored that no one will make vulgar remarks about them to rob them of their greatest charm, unconsciousness. And let us invite to meet them only people like the old Jewish lady Miss Addams told me about riding through the slums with. At almost every group of children the dear old lady would lean forward and say: "Ach Gott!" That is the type of people we should surround our children with; they do not spoil with that kind of love.

A noble use of wealth of any sort is to lift the burden from the weak and helpless. We can do that by helping to make clothing fashionable that is not a burden to the child, nor to the purse of the parent. At every purchase of clothes, at every birthday or Christmas celebration, at every question of theaters, down-town events, luxuries, and allowances, let us ask ourselves two important questions: Will confirming these conventions separate my boys from my girls in any way? and, Will confirming these conventions lay a heavier burden on all children and their mothers? And if upon the painful demands of our more or less contaminated children for more luxuries we gently remind them of the people who need the money more than they do, it is usually enough. Not always, but sometimes, we must be stern parents.

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ON THE MORAL TRAINING OF CHILDREN.

YESTERDAY a mother watched a babe of eleven weeks. The child's hands and feet gyrated in slow, angular motions; her breath came and went in sobs; her eyes were fixed upon a bright, red book held straight in front of her; and she quivered with a spasm of reflexes at the loud striking of a clock uncontrolled on the mantlepiece behind her. She had wakened very much as a shark comes to the surface to breathe, most of her life being spent deep in the ocean of sleep. Her fingers and toes gripped tight around my cool finger; she turned her head at the sound of her father's voice; and her face became a sudden wrinkle as she wailed for food. What powerful intercostals! Otherwise, what helpless lack of co-ordination and utter plasticity!

Let us ask ourselves how this non-moral organism is to become moral, that is, active in the institutions of society. One recalls the view of man as the subject of a distant Law-Giver whose will is written on the tablets of the heart; and one part of the old conception lingers before the mind after the rest has disappeared, viz., the part of self-judgment and self-control. High over all sits the sovereign Lord, holding man inexcusable for any failure to know and conform to his will; just before us waits the judgment day, when each shall be rated according to his deeds; and in the wide, white silence of that awful morn, no matter what doubt and confusion may have existed before, each shall judge himself aright, and call to the rocks to fall on him and hide him from the face of Him that sitteth upon the throne.

Today we know that the moral law is as much the achievement as it is the judge of man; that the will is bound by no law which it has not imposed upon itself; and that the sovereign Source of law is not a distant king and judge, but our father, brother, and friend. No mere code of morality can be devised in which the principles do not conflict with each other, so that in obeying one we are at times certain to disobey another. Moreover, mere rules seldom fit the exigencies of the concrete situations in the midst of which men find themselves. Moral judgments are neither innate nor externally revealed; each must judge the present situation for himself; and morality is a continuous process of revamping old habits into more and more adequate adjustment to the conditions of life. Morality is the control of action by an increasingly adequate image of one's personality and one's place in the institutions of society and in the world. Moral training is, consequently, no simple process of laying down rules and forcing children by authority and by punishment to conform. It is rather the task of nursing into existence a will which lays down rules for itself and conforms itself to its rules; the task of developing self-control in beings born without inhibitions.

It is the function of images, or the cortical processes which accompany them, to co-ordinate, inhibit, and guide the activities of the lower-lying centers of the central nervous system. Motor control is a function of the system of images which one entertains of himself and his world. The image is the first step in action, the initiation of conduct, the determining factor in morals. Too little emphasis is placed, as a rule, upon the motor value of the image. Most people think that images float free and disconnected in the mind, like birds and clouds in the sky. The fact is, every image affects the muscular systems of the body and, consciously or unconsciously, produces movement; while, on the other hand, all control of movement begins with images of movement or its consequences. It is one of the popular illusions of mankind, old and young, that they can entertain ideas in the mind without allowing them to affect conduct. The child's chance of controlling his activities in life consists simply in the possibility of selecting and determining, under the guidance of parents and teachers, his mental imagery.

Present images depend upon past sensory experience, and upon the present conditions of the nervous system as determined by incoming impulses from the sense-organs, by nutrition, by intracranial conditions, and by intracortical processes. Past sensory experience, on the other hand, was the result of action; and present images are improved as to definiteness of detail and vividness of sense-quality by being carried out in action. To train the imagination, not only is it necessary to provide a rich and varied sensory experience, but children must be encouraged to carry out their images in play, in story-telling, in drawing, in question-asking, etc. Images not only control actions; they result from actions. Images grow out of the past and present activities, and constitute the first steps toward further activities. In general, the results of an action determine what the motor value of the idea of that action shall be.

By far the most important of all images, from the moral point of view, is the self-judgment or self-thought — the reflective consciousness of self. No factor of the mental life is higher in authority to inhibit, co-ordinate, and guide. The ideas which a child has of the relations of his own body to the rest of the world, his ideas of the relation between his own activities and the family, the school, and the neighborhood of which he counts himself a part, and his ideas of the bearing of his life (when he acquires them) upon the life of the race — the child's ideas of these relationships are the keys to his moral experience. Baldwin distinguishes four stages in the development of morality: first, the non-moral stage of the infant, when no self-thought exists; second, the stage of authority based upon imitation, with or without understanding; third, a stage in which relationships of right and duty are standardized by instruction and reflection; fourth, the religious stage, in which the ideal self becomes an object of worship, the source of moral law, and the mystery of mysteries. Moral training is the socialization of the child, making him active in the institutions of society. Our theme, accordingly, suggests three questions: first, the child's hereditary equipment for entrance into social life; second, the principles upon which the socialization process is based; third, the media of moral training.

First, every normal child inherits from the past a system of bodily organs capable of impulse and reflex action. Even before birth such activities occur. He also inherits instincts, that is, tendencies to action which are common to the race, are provided with special organs, and tend to meet the needs and satisfy the conditions of life before a consciousness of needs and conditions is present. Among the impulsive tendencies of the child we find a complete socio-nomic equipment. The child is born sensitive to the presence of others, eager for comradship, quick to show his sympathy with others' suffering; and he is also born with an impulsive tendency to carry out in action the ideas of movement derived from his own past movements, and from the words, the conduct, and the attitudes of others. Such is his nature that, for no reason which he can give himself, he is uneasy and uncomfortable until he has done what he knows others expect him to do and what harmonizes with his own past. All children are suggestible, that is, teachable; and thus nature provides for the development of inhibitions and moral control.

The first form of control to be attained by the child is muscular, depending upon the development of the cortex and the sense-organs. Muscular control is a natural growth, and the most important thing for teachers and parents to do is to see that no obstacles are imposed upon nature, such as tight swathing, carrying the child upon one arm tight against the nurse's breast, impure air and food, tardy and careless attendance, etc. There is some danger of injuring the child by trying to force the development of muscular control. Even in the tender months of infancy parents are discouraged when a baby does not show precocity in sitting up, holding up its head, in reaching and grasping, in walking, and in other motor co-ordinations. This should not be. Above all, babies should not be persistently teased during the first five or six months to notice bright lights and colors and carry out fundamental co-ordinations. But the foundations of moral control are laid in muscular control; and all through life the complete mastery of the body, such as athletic training and industrial skill develop, is one of the important conditions of moral control. For a child to know that he *can* do things, that he can achieve desirable results with his own hands, feet, and body, is without any doubt a great moral advantage. Herein lies the moral significance of manual training and interscholastic athletics. It is not necessary to dwell at length upon the oft-mentioned evils of that type of muscular training which involves close attention to minute details before the larger muscles and coarser co-ordinations have been trained. Muscular training should proceed from the coarse to the fine, from whole-arm to finger movements, from easy exercises in skipping, hopping, and jumping to more delicate dance movements. Of course, there can be muscular control without moral control, and there may be moral control in individuals who are lacking in capacity for muscular movement; but it is probably not possible for individuals possessing great muscular capability to reach the highest planes of moral achievement possible to them, without mastering their own energies. In other words, it is *control* that possesses moral significance, not strength and competitive ability.

Authoritative control is accomplished by suggestion and achieved on the child's part by imitation. As it appeals to imitation, and not to the understanding, authoritative control is not moral; but, like muscular control, it is one of the conditions of entrance into moral experience. Children are naturally amenable to the dictation of authority. From a child's point of view, authority is a special kind of suggestion; but the only authority which can be real to him must be effective. That is to say, parents and teachers who do their best for children will see to it that their suggestions are carried out. Of course, no one at the present day holds that "punishing" children is an administration of justice; and, of course, authority which breaks instead of training young impulses is criminally stupid. What Stevenson calls the "fine wildings" of a child's nature, his unconventional tendencies, his firm native grip upon freedom, are among his most precious moral possessions. Other things being equal, the more spontaneity and freedom the grown-up man possesses, the greater will be his moral initiative and usefulness to society.

The child's imitative endeavors to understand the conduct of those around him by reading himself into their actions, and his attempts to understand himself by doing what he sees them do, slowly develop in him a consciousness of personality and an idea of the difference between a self and all other things. His sense of agency manifests itself in waywardness and adds to the natural insubordination of impulse. But while he is running away from home and destroying his toys, he is at the same time learning the lesson of moral control and obedience: he struggles with himself and becomes dimly aware of the scale of personal values. Very frequently the consciousness of a self which always obeys, a morally perfect self, results from a conflict with the authority of parent or teacher; and undoubtedly a wise exercise of authority is one of the most potent agencies in the development of a moral sense. When once the ideal self has been realized, a moral dualism ever afterward characterizes his self-thought. There is the retrospective self of habit, a familiar self of disobedience, discipline, and hard-won obedience; and, on the other hand, there is the prospective self of still unattained and even, in some respects, undefined perfection. Out of this dualism arises ultimately a religious thought of self, as the subject of an eternal authority, which is one of the most important factors in the development of the natural religious consciousness. In this sense of the term, every child sooner or later comes to be religious.

What interests us especially here is the control value of this self-judgment. A child's experience is never strictly moral until the personal image has become a factor in the control of his movements. Teachers should know how to recognize this exercise of self-judgment and encourage children to act upon their judgments of themselves. They should acquire habits of absolute honesty in self-judgment, and come to hate self-deception more than any other form of illusion or mistake. Is it too much to hope that the boy and girl of eight or ten years shall begin to know the great value of honest and adequate self-judgments, the full realization of which rarely comes before the age of thirty years? Surely children may become acquainted with the fact that we like to think well of ourselves and have others think well of us; and surely they can be warned against, and trained to inhibit, all forms of hypocrisy and misrepresentation of self — those most insidious and inveterate foes of honest self-judgment and self-control. Another condition of accurate self-knowledge is good company, good manners, good literature, and good conversation. A child cares more for the judgment of those whom he respects than for the judgments of any transcendent being or beings whom he has never seen. *Vox populi, vox dei,* is good child-psychology, but bad ontology. The child's judgments of himself depend upon the judgments which the chosen companions and advisors of his heart, those whom he associates with himself in his self-thought, pass upon him. How important it is that the intimate companions of his life be good! The old adage, "Tell me what company you keep and I will tell you what you are," conveys, if we understand by "company" those whom one associates with himself in his thought of himself, much truth.

As to the principles of moral training, we should refer again to the cultivation of muscular control through images and language. Language, imitatively acquired, is one of the most important media of moral training. In mastering the meanings and uses of words, a child acquires knowledge of moral relationships; and, having mastered words, they come to be suggestive to his imitative nature. Secondly, self-control is secured by exalting and focalizing the active consciousness. Children should be especially encouraged in activities involving the adaptation of means to definite ends. The moral will demands the habit of accomplishing *definite* tasks as its proper setting and background. Not mere industry, not mere business, but intentness upon the accomplishment of worthy undertakings, carries with it truthfulness and sincerity. Industry in the sense of mere muscular doing is of but little value in moral training, and the danger of stunting a child's more remote interests by it is great. We hold that the active consciousness should be made to dominate the character of the child, and that the habit of accomplishing definite tasks — that is, tasks which grow out of the child's own experience and have been defined by him — should be in every way encouraged by his teachers and parents. This active habit in a child leads to truthfulness and honesty of judgment. There is, however, a danger that children will become so intent upon action that they will be impatient of reflection and mature judgment — what Professor James calls the explosive will. And yet, even the explosive will may, by being encouraged to undertake *definite* tasks of increasing difficulty, overcome its bird-wittedness.

The danger of too great devotion of the energies to action, the danger of explosiveness, is overcome, in the third place, by enriching and informing a child's interests so that he becomes more open and receptive toward his environment and more eager to take in all sides of a thing before acting toward it. Habits of observation are, of course, invaluable in the training of the intellect, but they have their place also in the development of character. That a child should hesitate before deciding a matter is desirable, just so he does not hesitate too long. The obstructed will is as ineffectual as the explosive; and it is not necessary to repeat here the practical suggestions offered by the psychologists as to methods of dealing with these two types.

The fourth principle of moral training is authority — insistence upon the recognition of the necessary relationships of co-ordination and subordination within the institutions of society. Moral instruction should not be overlooked in the catalogue of the principles of moral training. Relationships of right, and the laws of conduct based upon them, need to be defined and standardized for children, to clinch the habits which they have formed and to aid them in forming others. But it needs to be remembered in this connection that morality is moralization, that moral training is a continual process of re-forming good habits as well as inhibiting bad ones. One also needs to remember, when giving moral instruction, the general relation of images to action. Images should grow out of the child's past actions and initiate present action. In other words, moral instruction which does not give the *child* a new and better idea of himself and his child's world will not avail. Perhaps one of the most serious faults of the present methods of moral instruction is their *ex cathedra* character. Moral injunctions are apt to come to children like bolts from the blue which they are left to connect as best they can with their own experience. Such connections are for the child too often purely external and accidental, as the precepts are in no sense imposed by the child's will upon himself. As a result of such moral instruction, too often, the child yields an external compliance while secretly indulging habits more in accord with his own ideals. This is the natural consequence of the older conception of morality as of supernatural origin and of *a priori* validity. Child-will, like the adult will, naturally acknowledges no moral compulsion which is not self-imposed. Moral instruction must be based upon the *child's* past experience.

We would also mention the value of attitudes and exercises which recognize the essential unity of all experience — religious attitudes. Not that religious training is a special kind of training, or that religious exercises fall in a group by themselves. Far from it. All principles of moral training are religious in so far as they are based upon and recognized as a unity of all experience; and little folks should be made to feel that the significance of their conduct reaches beyond the present situation into a realm which the understanding cannot always penetrate. Most children should be encouraged to do what they *feel* to be right, and such feelings naturally lead to conceptions of a religious nature.

A few words may now be added on the means of moral training offered by the schools. In the first place, science in all of its branches may be made a means of training truthfulness, and exactness of observation. In the natural sciences truth to fact is an obvious condition of successful procedure. In the historical and social sciences the lessons of morality are teachable without explicit ethical comment. In literature the same thing is possible; and in all the sciences the child's knowledge of himself should be so enriched and defined as to make his self-judgments more intelligent and his self-control more complete. For example, what an opportunity the biological and social sciences, together, afford for inculcating a wholesome respect for the relationships of the family, and what a wealth of motor images the literature of childhood and youth affords! Manual training, in all forms, instructs and trains children in the adaptation of means to ends, and in the necessity of truthful exactness and accuracy; in short, the value of good judgment. Moreover, manual training brings out and emphasizes the importance of definiteness in the tasks and undertakings of life and tends to develop the habit of pursuing definite ends. How pitiable is the man possessing noble capabilities, eager to work and competent to perform, impotently waiting for someone to define his tasks for him! One knows of many such men. Their imaginations are filled with vague and remote dreams of desirable ends which, from mere lack of definition, they are unable to set about realizing. Indeed, this is the common fault of the idealisms of adolescence. Manual training may be invaluable as a means of correcting this fault.

The third means of moral training to be mentioned here is the organization and *esprit de corps* of the school, the home, and the playground. One does not like the terms "school government" and "home government" because of their associations. But the necessary discipline of the individual child, wherever many unite in the realization of common tasks, is of great importance in moral training. Not politeness so much as good manners should be the aim — kindness in the sense of kinnedness, cheerfulness with serenity, geniality, magnanimity, respect for age and authority, charity. In recitations all tendency to deceive by stabbing and bluffing should be overcome; but it is first necessary to awaken interest and overcome the natural timidity and shyness of children. That a child should, out of timidity or a wish to protect thoughts that are dear to him, fear to express himself, is always to be deplored. The socialization of the school and home should be carried so far as to make such things unheard of.

In the fourth place, music and gymnastics, so highly prized of old, contribute to the sense of harmony and a delight in unified activity. Muscular control of the finest quality and inhibitions of social importance are thus achieved. But perhaps games and play contribute as much to the moral training of boys and girls as all of the above factors combined. Play, like morality, is autotelic — carried on for its own sake. Play involves, very frequently, the imitative realization of an imaginative situation, and in this respect also resembles moral performance. Many plays are imitative of real social situations and involve the dramatic element of make-believe. Play is invaluable as a method of imitative experimentation in social experience. Children try on the preaching situation, the fire-department experience, the management of trains, the nursing and disciplining of children, each following his rôle and getting the experience he is entitled to under the rules of the game. Social fitness plays a considerable part in children's games. One boy cannot preach because he is such a liar, and another cannot be the engineer on the train of chairs because he broke his own engine the day before. Plays are adapted to the resources and circumstances at hand. Tests of social fitness are also brought out in games; stupidity and clumsiness are sure to be pointed out with childish frankness. Self-control on the part of the individual, the inhibition of impulses, confining himself to his rôle and the dictates of fair play, is an outcome of play. Moreover, social invention is here in great demand and constantly exercised. In all these respects, a child learns to judge himself and others. Wherever teachers, as a result of tact and sympathy, find it possible to enter into the games and plays of children, they may exercise a potent moral influence.

The last means of moral training to be mentioned here is the personal influence of the teacher. By right living and self-control, by cheerfulness and devotion, she helps to develop her virtues in her flock. The imitations of children go deeper than the external word and act; the latter carry with them the moods and motor attitudes which they "express"; and far more is often accomplished with boys and girls by the silent personal influence of a teacher than could be accomplished in other ways. Indeed, this influence is indispensable; it alone gives point and definite meaning to the other forms of moral training.

Before closing this paper, some common mistakes in moral training should be mentioned. The submissive and bumptious types are common enough; but it is more necessary to call attention to the over-trained and under-trained products. The firm, polite, obliterated personalities which result from over-training are no less to be deplored than the crude, naïve, self-assertive characters of the opposite sort. Little girls of such exaggerated conscientiousness that they accomplish nothing — all their timidities turned to moral qualms; and men of thirty years so painfully polite and ashamed of their natural impulses that they are incapable of initiating and leading any social undertaking. It is the "staleness" of an overtrained athlete. Be the circumstances what they may, nothing but inhibitions come into their minds when called upon to act. Let us have the blundering greenness of good-natured impulses rather than this gray heaven of second thought and inhibition. There is hope for greenness and gullibility in an environment of culture. The only absolute duffers in the moral world are self-constituted. Let youth be trained, but not defeated; bent perhaps, but not broken. The impulses of childhood must be controlled by adequate judgments of the relationships of the individual to other individuals within the institutions of society; but the inhibitions of action should grow out of the situations which give rise to action, perception and judgment being so trained that the situations call for no immoral response.

Of criminals it is best to say very little or very much. Only a small percentage of criminals are born defective. In some cases society has placed such environments about children and youths that they grow up to think of felony, and even murder, as a country boy thinks of hunting squirrels or trapping bear. Dare we hope for a time when all the influences that play upon the minds of children shall be socializing?

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THE SOCIAL CHARACTER OF CONSCIOUSNESS AND ITS BEARING ON EDUCATION.

IN this paper I propose to ask two questions: First, What do we mean by the "social character of consciousness"? And, second, In what ways should education recognize the social character of consciousness?

In general, the answer to the first question is that the real self is always a social self. This has been shown by the development of personal consciousness in the child and by the evolution of social consciousness in the race. The child at first does not have that individuality that we attribute to him later. He may almost be said to have no consciousness of his own. His consciousness and individuality are still merged in that of the social group — the family. His individuality comes only by a gradual definition of his own peculiar modes of behavior within this social matrix. Professor Baldwin, in his study of *Mental Evolution in the Child and the Race,* has brought out with great force the truth that the real self is a bi-polar self — a self-conscious self which is at the same time a socially conscious self, a person which is at the same time a *socius*. Anthropologists tell us that in early stages of human evolution the individual was still lost in the tribe. His acts were the expression, not of any individual initiative, but of the tribal consciousness.

Each self is not impervious to other selves. Selves are not watertight compartments, each of which might remain complete in itself even if all the others were destroyed. But there are open sluice-ways between all the compartments. Society is a vast plexus of interweaving personalities. We are members one of another. What affects my neighbor affects me, and what affects me ultimately affects my neighbor. The individual is not an impenetrable atomic unit. The self is simply the social whole coming to consciousness at some particular point. Every self is rooted in the social organism of which it is but a local and individual expression.

A self is a mere cipher apart from its social relations. As the old Greek adage has it, "He who lives quite alone must be either a beast or a god." Just in so far as you are capable of experiencing such emotions as vanity, conceit, sympathy, friendship; just in so far as you have any social position, as you hold, or aspire to hold, office in any social, political, religious, educational institution; just in so far as you have a profession and are dependent upon others, or have others dependent upon you, for stimulus and suggestion, you are a social self. As Professor Stout says: In relation to enemies it is a combative self; in relation to friends it is a conciliatory, genial self; in relation to superiors it is a submissive, receptive self; in relation to inferiors it is a dominant, controlling self; in all these it is a social self. "Every man must needs have some other human being by him, if only to annoy him. Even rivalry and hatred rest on some sort of consciousness of a common nature."[1]

It is impossible for the adult human being to get away from this social aspect of his consciousness. No man is alone even when he is by himself. As the mediæval theologians said: *Unus homo nullus homo.* Robinson Crusoe did not escape from society when he was wrecked on a desert island. His consciousness was already socialized. He carried the social environment with him indelibly engraven in his memory and rooted in his personal habits and ways of feeling and thinking. His whole mental life is saturated with social implications, is shot through and through with social motives and ideals.

It is a significant fact, as Bosanquet points out, that the term "person" comes to us from Roman law, and *persona* in Roman usage did not mean simply an individual human being, but embraced the whole Roman family, including the slaves and domestic animals. Personality and consciousness are not something which are "in my head," and somehow so bound up with my organism that other persons cannot share in them. Personal consciousness is a continual social synthesis, which, indeed, has no existence apart from individual persons, yet which expresses more than any particular person's individual consciousness. Consciousness is not a thing which you or I possess; it is rather the functioning of a psycho-physical organism which moves in a social as well as a physical environment. In the adequate statement of the single tree you must take in the whole forest. In the adequate explanation of a single organ you must take in the whole organism. In the adequate statement of the nature of personal consciousness you must take into account its social character and origin.

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[1] HOBHOUSE, *Mind in Evolution*, p. 338.

Such a consideration shows that the dialectic thought-processes of the educated civilized individual of today is the inward reflection of the argumentative dialogues between different individuals in an earlier stage; that is, the dialectic of two phases of thought in one mind today is a reflection of the outward dialogue of two persons in earlier times. Your complicated imagery and trains of ideas are the residual pictures of the scenes enacted and the journies traveled by your forefathers. Language is a social product, no mere individual acquisition; and thinking is only an inner speaking in which the two aspects of the divided self take the place of the two parties in a conversation. The effect of such a social event as the invention of the printing-press upon the deepening and widening of individual thought and the bringing to the self-consciousness of the individual of new social values is another illustration of the intimate relation between the individual and the social aspects of consciousness.

Social personality is the original stimulus to the development of individual self-consciousness. As Ward says: "Collective action for common ends is the essence of society, and in taking counsel together for the good of the tribe each one learns also to take counsel with himself for his own good."[2] It is only through the development of the whole race that any one man can develop. Hence education must be at once individual and social, bringing "the most intensive individual existence into harmony with the most extensive social life" (Guyau).

The so-called recapitulation theory throws light on this subject from another angle. This doctrine holds that the mental development of the individual is a more or less exact reproduction of the mental evolution of the race. There are gaps and short-cuts, but the general principle holds that ontogeny is an epitome of phylogeny, as the biologists say.

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[2] *Encyclopædia Britannica,* Vol. XX, p. 84.

Now, what is the significance of this law? It is this, that the individual is simply a specific realization of humanity at a finite point in space and time, and to give this individual the benefit of the accumulated experience of the race he must be led through the essential steps of the experience of the race in order to appreciate and intelligently use the accumulated wisdom of the race. Nature, in other words, undertakes to socialize the individual by leading him, in outline at least, through the stages whereby society itself has been evolved. If we take the conventional period, the child has just twenty-one years to catch up with the race, twenty-one years in which to become socialized, in which time the accumulated experience of the race is to be transferred to him, not in any mechanical or external way, but by his living over that experience in the growth epochs of his own development.

On the educational side this has given rise to the culture-epoch theory which seeks in the cultural products of primitive peoples the suitable materials for the earliest stages of the child's growth and, in its extreme form, finds in the successive stages of historical evolution the subject-matter for corresponding stages in the mental development of the child.

Still another consideration shows the social character of consciousness. Society, as Professor Dewey has pointed out, may be viewed as

> the process by which experience is passed along, communicated, transmitted from person to person, so that each individual will not have to begin *ab initio*. The transmission of this experience is necessary for two reasons. First, all adults, those who have received these experiences, are going to die. Second, new individuals are coming into the world, and they are helpless, inexperienced. The experiences of their predecessors are to be communicated to these newcomers. . . . . The educational process is but one mode of transmitting this experience, the most striking difference being that in all other institutions, except the family, the relation is between persons who are equal, *i. e.*, between adults, whereas in education it is a relation between adult and

infant, who are not equals either intellectually or socially. In other words, the experience of the race projects itself in certain institutions, certain social conditions. The child is born into these conditions, and in fitting himself to them he gains the experience of the race.

Education means that the child may learn through the experience of the race as well as by his own experience. Learning by experience in the first instance is always a laborious and expensive process. In the education of children the social environment is so controlled by their elders as, by short-cuts and wise selection, greatly to economize effort in the process of learning. Education, like instinct and tradition, seeks to bring the experience of the race to bear on individual conduct, but, unlike them, it seeks to do this consciously and reflectively. The aim of the educational process is not simply to conserve the dead level of the social average by abstracting from or overlooking the differences of individual variation. The general level of social consciousness is only one side of the problem. Equally important is the variation of individuals above and below this level.

Education in a true sense, therefore, may be said to have as its end the socializing of the individual. It is a false antithesis to contrast the social and individual aspects of education as though they were distinct and even antagonistic points of view. Much educational theory proceeds upon the assumption that the development of the mental powers of the pupil is a purely individual matter, and that the socializing of the pupil is a certain manipulation of individuals whose mental powers are already developed. It is against this view that we would urge the conception that all true mental development is an organic circuit in which both stimulus and response are socially initiated and determined. Whatever be our view of the social mind, so called, it is certainly true that all social life and progress take place in and through individuals, while the mental life and growth of these individuals may be viewed, in turn, as preserving the continuity of a common social tradition, a common consciousness. In this sense, we may quote with hearty approval Dr. Harris's declaration that a fundamental educational philosophy must be based, not on physiology, or even on psychology, but on sociology.

The second main question is: In what ways should education recognize this social character of consciousness? A few suggestions in outline are all that I shall attempt. I will speak briefly of four points: (1) Education should make a gradual transition between the informal training of the home and the formal instruction of the school. (2) Education should make the life of the child the principle of correlation in the curriculum. (3) Education in the elementary and early secondary periods should follow a spiral rather than a step-ladder method in the curriculum. (4) Education should put moral character and social efficiency above mere physical or intellectual development.

1. The truth is that nearly all the existing difficulties and problems, in elementary, secondary, and higher education center about this fundamental question of the relation of the larger social life to that special form of social life which goes on in the school. In this connection two main needs may be pointed out:

In the first place, the formal instruction of the school may profit by the informal methods of training outside of the school. This is the element of truth in the so-called natural method, or education according to nature. We need to bring up the method of teaching, which we have largely inherited from the past, with its different conceptions and ideals of education, to accord with the present content of the curriculum, with its varied introduction of new subject-matter. This will involve smaller classes, a different principle of correlation, and the recognition that the proper study of *any* subject may afford discipline, emphasis being upon the *how* rather than on the *how much,* on the method rather than on the subject-matter.

The other desideratum along this line is the more thorough organization of the educational system, so as to avoid those gaps and overlappings which are such a waste in education, and so as to make the education attained at any given stage in some sense complete in itself, so that the high-school period, for example, may become, not a preparation merely for college, but for life; so that the school is a place to live and grow and be, not simply a place to prepare to live and get ready to be something later. In these two respects there should be a closer relation between the formal and the informal types of education.

2. The second way in which education might recognize the social character of consciousness would be to make the life of the child the principle of correlation in the subject-matter of the curriculum. Human life and human interests and human action form the only true center of correlation in education. And if this must be more closely defined, it may be said that the continuity of social aims and acts in and through the lives of individual pupils is the principle of correlation. All our abstract scientific and philosophical systems of knowledge have had a practical origin, an economic and a social source. Even mathematics and logic, the most abstract of the sciences, were associated in their beginnings with social enterprises and grew out of practical problems. Mathematics grew out of the measuring of fields and the weighing of goods and the calculating of dates. Logic began as the art of persuasion, as the technique of argumentation. So with the other sciences. Astronomy began as astrology, chemistry as alchemy, psychology as phrenology, and so on. If the evolution of knowledge has been guided by an economic, a practical, and a social principle in the race (which itself has been made up of individuals), then the instruction of the child (of the single individual within the race) should follow this natural method and start with this practical social reference as the determining principle in the earlier stages of his instruction.

If some such natural method is employed, if formal education is made sufficiently continuous with the informal, the problem of correlation practically disappears in the form in which it is ordinarily stated. The child, as he lives his own life in his own natural social human environment, has no need of any scheme of correlation in order to tie his various experiences together. Organize the school on a similar basis and there will be no such need there either. Putting it on the individual or psychological side, the child's habits and interests are the sufficient basis of correlation. Putting it on the social side, certain typical social activities or occupations furnish the principle of correlation. These occupations are simply the social content of these habits and interests.

It is the social life of the child which serves to determine both the core of the curriculum and the center of correlation. There is no real problem of correlation if the formal, controlled, organized instruction of the child has been developed by natural gradations out of the informal, relatively uncontrolled, and unorganized training of the home and extra-scholastic environment. This is the significance of the occupations of the kindergarten. These are essentially social occupations. This is the significance also of manual training and of the laboratory method. In the broad sense of these terms, manual training and the laboratory really serve to introduce the child to the great typical lines of human experience (not only industry and trade, but also intellectual and social activities of every sort). I know of an institution where even English literature is taught by the laboratory method. This, again, is the significance of art work in the schools when it is rightly taught. Art introduces the child to an appreciation of great masterpieces of human genius, and the æsthetic criterion is always ultimately a social one. Every subject of the curriculum in the early educational periods should be introduced in its human relations, and this applies to science, literature, language, history, to all branches of study without exception. The child must feel them in relation to life.

As Professor Dewey says, the standard of value for studies is a social one, and the ultimate material of study is social life. The various so-called studies only represent abstractions and inventories or formulated surveys, for purposes of convenience, of particular phases of the totality of social experience. The criterion which measures the value of any subject, educationally considered, is the extent to which it contributes to socializing the consciousness of the child; that socializing process having the two aspects of rendering him, on the one hand, a more efficient member of society, expressing its traditions and aims, and, on the other hand, of developing him on the personal side into that progressive sort of an individual who will, if need be, oppose those very traditions and aims in the interest of a larger outlook for social progress.

3. The third way in which education might recognize the social character of consciousness is by using what I have here called a

spiral method of instruction. By a spiral, as contrasted with a step-ladder, method of instruction is meant a method whereby the pupil is enabled to study, not successively new subject-matters, but the same old subject-matter from new points of view. This method is recommended only for elementary instruction and for that period of secondary instruction which precedes the specialization in teaching and the elective system of the high school. It presupposes a single teacher who is a person at once of broad culture and yet enough of an expert in some line to sympathize with the departmental teaching of the high school.

The key to this spiral method would be that the child should live through a certain amount of subject-matter, that he should himself have actually occupied certain typical mental attitudes, no matter how this is brought about, and that he shall have done this in an increasingly intelligent and controlled way, so that he will have gained that discipline and balance which fit him to enter into the more specialized work of the high school. Instead of having the subject-matter of his studies cut up into chunks which we call lessons, and presented serially and more or less isolated as special subjects which then have to be correlated, the idea is, as far as possible, to have but one subject-matter which receives emphasis now at this point, now at that, according to the development of the class (and of the individual in the class) and according to the insight of the teacher.

This certainly will be open to the charge of not being practical, when measured by current educational standards, which are grounded in a more or less rigid theory of examinations, grading, and promotion. It requires a higher grade of intelligence in the teacher and puts also a greater responsibility upon the teacher. But that it is not impracticable is proved by the fact that there is a living illustration of the method as applied in Professor Dewey's so-called experimental or laboratory school, the University Elementary School at Chicago. That this school or its methods are not open to criticism I do not maintain, but that the success of the experiment is a complete justification of the general standpoint is, I think, beyond dispute.

Someone recently has said that there is danger of the high school's being destroyed by being ground between two millstones, the lower millstone being the kindergarten and the upper millstone being the university. Well, if this means that the high school is trying to work out a method of instruction which will combine elements from both the kindergarten and the university, then this sort of grinding is a desirable thing, for, in my opinion, the university and the kindergarten emphasize the two complementary halves of a true method of teaching. But, instead of crushing out the high school, it is in the high school that the soundest pedagogical method of the future is destined to be worked out.

4. Just one word with regard to the last way in which the school ought to recognize the social character of consciousness. The day has arrived when the idea of moral training, like the dogma of formal discipline, is undergoing a radical transformation. It is beginning to be seen that moral training is not gained by a separate instruction in a special subject-matter, but is gained in the prosecution of the ordinary common school studies. Moral training lies in the attitude or atmosphere, we might almost say the method, in which all the rest of the work of the school is done. If it is not found here, it is never found in any special ethical instruction formally administered. Ethics is the one subject in which formal instruction is foredoomed to failure.

This is the natural outcome of the conception of the social character of consciousness and of the correlative conception of education as the continual reconstruction of experience through the socializing of the consciousness of the child. Morality is a distinctively social phenomenon, and the moral consciousness can be built up and trained only in and through social influences. The social life of the child is an organic whole. It is not split up into parts — physical, mental, moral — but, like any other organic process, it follows those spiral rhythms of growth which are characteristic of every living thing. Here, then, is an additional reason for adopting the circular or spiral method of presenting the subject-matter, for the moral life is essentially a re-living on successively higher planes of comprehension of the continually recurring problems of life which differ, not so much in their specific content, as in the different methods of dealing with them which at different periods are required for their solution.

These are two important points in modern educational theory: first, the essentially social character of the consciousness of the child; and, second, the necessity for the adequate recognition of this in educational method.

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THE PLACE OF GENERAL IDEAS AS CONTROLLING FACTORS.

No matter what ideal be used as determining the choice of educational material for children's school work, it is certain that the use scientifically of the opportunities presented by that material must be determined by the scientific concepts in the teacher's mind. Such fundamental ideas as are summed up in what is called the law of the conservation of energy — of the various forms of reversible and irreversible transformations of energy, in the concepts of mass, motion, and momentum — are necessarily most fundamental. Biologically speaking, the summing up of the effect of the action of the natural forces involved in the concept of evolution occupies a similar determining position, if one understands by that term both the advance made since the earliest epochs of time by all forms of life in the utilization of their natural environment, and the advance made in the life of each organism. In the proper understanding of the growth of the mind as a part of this same evolutionary development comes the freedom from tradition *per se* in education.[1]

The teacher must be capable of looking at any process going on as a result of interaction of forces which can be controlled by analysis, which are subject to the same laws, no matter how outwardly unlike they appear to be in manifestation. To illustrate the advantage gained through the use of some such concepts, we begin with that force first used by men, and perhaps because it is so continually and everywhere acting that its very familiarity has bred contempt — the force of gravitation. This same contempt has brought about an ignoring of its possibilities educationally as a means of introducing the child in a natural way to that concept of force which he must possess in order to have made the advance in intelligence which is his birth-right in this twentieth century. The idea underlying the familiar process of weighing as the process in measuring the pull of the earth; the connection of this notion, which the child already possesses, that this pull or force is acting upon him in common with all other things, with the notion of controlling and measuring it, can be begun in the very earliest years. The association of weight with only such objects as can be grasped and carried should be extended as soon as possible into the general idea that this measurable property belongs to all things, even to the intangible air. If in the very beginning the introduction of anthropomorphic reasons for the changes which the child sees going on about him be scrupulously avoided, and the reasons for such changes be stated in terms of such forces or motions as the child already understands, or not stated at all where such an explanation seems impossible, the first step toward a scientific attitude is made. While this does not bar the legitimate use of the myth and story, or the child's natural personification of forces, it does limit such forms of expression as a means of introducing phenomena to the child's attention. The growth of that attitude of mind which is recognized in the vernacular as belonging to the possessor of "common-sense" must be continuous, hence enter into the simplest process a child can manage.

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[1] Young, *Scientific Method in Education*, pp. 4, 5.

When in his first cooking he finds out through his quantitative work with the various cereals that bulk and weight are not synonymous terms, that to find the amount of water needed weight is the only standard, he makes a great advance. When he carries over this idea of the particular advantage of the use of weight into its use as a universal measure, he is also ready to gain some conception of the adaptation of this force to man's use in most primitive applications, such as water-power and falling weights; also to translate what he sees going on about him in the falling range, in the grinding rocks rolled along by the spring floods as they tear away the land, in the pounding of the waves on the shore, destroying the block — all simply other manifestations of this same force. When he can carry over such illustrations as the making of wave-motions in a small pond, where he directly controls the direction and amount, into the understanding of the wave-motion in lake or ocean, he is also ready, though it may be in the form of but a dim feeling, to realize the motion of the earth as it sweeps him past the sun and stars by day and night. He can then intelligibly carry his notion of day and night, and the revolution of the moon about the earth, over into a comprehension of the yearly journey of the earth about the sun, and to seize with delight the notion of the circling planets as they accompany the earth. The whirling top, the swinging pendulum, and the sling-shot will then all carry with them such association as will gradually build up a usable concept of force and motion. We find children of eight able to develop, through this notion of mass and bulk, a rational system of weights and measures. Children of nine can carry farther the same idea through some application of the principle of specific gravity. The best point of attack has been found to be through the discovery of the fact that a floating body displaces its own weight of liquid, and that this method is the most practical one of finding the volume of an irregular solid; and with this experimental method of approach the child can experience the joy which made Archimedes's "Eureka" ring.

The historical evolution of the sciences indicates, among many other usable points, either the order in which the concept has developed, or even the practical problems which have caused the change of some simpler concept into its more scientific form.

The notion of the force gained as proportional to the velocity of a moving mass comes practically very early in the experience of a running boy; and it would seem possible, with proper apparatus, early to gain some notion of this force of impact as dependent upon velocity. Each child's experience contains vivid images of force embodied in a rapidly moving train, or a body falling from a great height, with a vague idea that the force possessed of this body is related to the height from which it has fallen or the rate of the train.

The incontestable interest in the locomotive of the child of nine or ten can readily be turned into forming experimentally some idea of the relation of the mechanical energy obtained to the chemical energy stored up in the fuel used, and back again to the source of that energy in the plants which form the coal. To allow the interest of a child to expend itself in merely running his toy engine, or in merely constructing a tram of cars, without making such activities the center of experiments necessitating the control of the ideas of utilization of the coal's energy by the child, is an inexcusable waste of opportunity.

On the biological side, the effect of the force of gravity on plants and animals should begin in the kindergarten. The geotropism of roots, stems, and leaves is an especially good point for experimentation with five-, six-, and seven-year-old children, and helps the child to a correct conception of the plant as a living thing, moving and growing under the same conditions as itself. Here such experiments as are often given later should be tried, showing the lifting power of germinating seed and the strength of the growing stem and shoot. The very definite response of some of the lower forms of animals to position with reference to the force of gravitation would be one of the earliest ways of making the child discriminate, in his observation of lower forms of life, between the apparently voluntary and the involuntary motions of animals. The relating of this to the familiar motion of the moth to the flame, and back again to the motions of the plants, will strengthen his ideas of unity of nature much more than the rolling sphere of the kindergarten gifts. It may not be out of place here to remark that the biological scientists of the new school declare that the anthropomorphic attitude of mind to which men are accustomed from their earliest childhood is one of the greatest obstacles to scientific thinking, and one which, in their opinion, is the easiest to eradicate in youth.

In later physiological work in the human body some analysis of the more ordinary muscular movements, so as to bring out the principle of the force involved through the use of some analysis of locomotion to show that it is a continuous forward fall, and that the attitude of greatest security involves a principle of placing the center of gravity with reference to the base of support, involve illustrations of the way in which a child can consciously connect in a new form his notion of the action of the force of gravity with a felt or muscular force.

The continual repetition, year by year, of experiments showing the dependence of animal life upon vegetable, and vegetable life upon inorganic material, as engines utilizing energy derived from the sun, brings out in more detail this fundamental conception of life, and should involve more and more analysis of the forces concerned.

The necessity for recognizing that the scientific development of the nineteenth century found its origin in the intelligent control of processes of manufacture gives a clue for the educational use of industrial processes. The truth that these processes must never center in themselves scientifically, if their use is to be really educational must, however, never be lost sight of by the teacher. It is too easy to be satisfied with the logical use and control by the child of the particular process he is carrying on, without seeing that he makes the widest possible application of the principle worked out to the greatest natural forces which his tiny process in any way parallels. With the growth of his ability to liken causes, to trace their effects (though Protean in form) as like in that nature which is essential to his desired end, the child will come naturally into the possession of that scientific method which is the key to intellectual power in any field of knowledge. He will do this without divorcing the play of emotion, and color of feeling, from his thinking; a divorcement that leads to the sterile intellectualism which, sufficient in itself, does not find its final satisfaction in expression in activity of worth to man.

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PREREQUISITES FOR LEARNING TO READ.

THE occupations of the primary school are more and more being determined by the stage of growth dominant in the child. Preparation for later school needs, which was formerly the basis for most of the primary education, has been met by the belief that future power depends upon the development of present power, not upon something stored up from the outside to be used on some distant day.

This essential change of base involves one of the prerequisites for learning to read, namely, that that stage of growth be reached which finds in reading a natural expression and a natural source of supply.

Through the first few years the child's development is characterized largely by his great physical activity and his instinctive social interest. As he grows, the constant and apparently aimless physical activity develops into a more definite, constructive interest. He begins to make *things,* and to put imaginary play meanings into what was before pleasure in mere bodily motion. In the same way the social instinct, satisfied at first by simple companionship, grows into an increasing desire to communicate the inner interests and to share the life of others. As this desire reaches farther, toward the sixth or seventh year, it extends to what reading can, in a measure, begin to supply. The child's absorption in some part of his experience becomes concentrated enough and definite enough to unite him sympathetically with others who have been connected with that same experience. For example: This experience may be some phase of his play — like digging a cave — in which he becomes so interested that he is eager to know about other people who have lived in caves. The play is merely the point of departure, but from it runs out a permanent interest. And reading becomes one of the means through which this interest may be satisfied. It is not that there is something in that first simple story of the cave, or Indian, or whatever it may be, which is necessary to the child as outside knowledge —

some inherent value in the story which he should absorb; but rather that it gives a fuller, richer meaning to something inherent in him, an interest through which he is living.

A further prerequisite is the mental development which makes the process of learning to read a natural one. This is, perhaps, implied in what has just been said, and is a side of the change manifesting itself at this age which is closely connected with the beginnings of all formal work. With the expansion of the social nature there must be the powers of abstraction, of concentration, and of attention to small and definite representations involved even in the beginnings of reading. First expression of any kind is vague and without control. The first movements are uncoordinated; the single sound or word stands at first for a whole combination of feelings. With the widening of experience distinctions increase, and there is a turning naturally to a more complex and definite means of language expression. This comes approximately in what is sometimes called the symbolic period. With the developing powers of abstraction there is a corresponding interest in symbols. The child of six begins to be interested in process, as shown by his willingness to work out steps when there is greater distance between the steps and the result. Symbols are no longer wholly foreign to his world. They are part of a means through which he is to discover something that he wants. When this time comes his curiosity about them is instinctive and may be turned to good account in the first reading and number lessons. But until his mental life is complex enough to need a language expression full of restriction he is not ready for reading, since reading from the first is based on a recognition of limitation in the use of the symbols employed.

Before the little child is given much direction in his drawing he is given ample opportunity for several years to experiment with his colors and pencil, to discover their possibilities in relation to what he has to say through them. In the same way the child in the kindergarten who is unable to skip to a set rhythm is encouraged to join in the movement in his own way (which may be an uncertain trot, or a run and a jump), and so in time he gains the muscular control and the cultivation of ear which enable him to interpret with perfect poise of body any rhythm played to him. In just the same way there is the sense-experience and the co-ordination which prepare for reading. It is the experience in hearing speech and in speech utterance which is termed the hearing-speech-meaning habit; for, since language is the tool of reading, a good, free development of speech is its foundation. To begin the use of written and printed symbols without it is like attempting to teach a child the technique of music before he has had the musical experience involved in hearing melodies, in singing himself, and in all the unconscious motor expression of the rhythm sense born in him.

Summing this up, we have a widening of the social interests which shall find in reading a natural expression; sufficiently advanced development to make the mental effort natural and to avoid undue fatigue; and a good, full speech development.

On the more formal side of method, if the principle of association is made the test and is applied consistently, the method must be good. And much enjoyment may be added by the realization that this beginning work not only leads to something else, but may be in itself a vital activity directly connected with what concerns the child now. When these two conditions are met, the "I see an apple" type of sentence is replaced by something of genuine meaning; and the approach to the first reading is not made through lists of words, or other symbols, unrelated to some such meaning. This does not exclude phonics or work on disconnected words, but it makes that kind of exercise merely auxiliary in a process whose essential purpose is to establish another means of connection between the child's self and the life of his outer world.

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ASSIGNMENT TO FIRST GRADE.

I HAVE long felt that greater care should be taken, in assigning pupils to first grade, to ascertain if they are mentally equipped for the business of learning to read and write. From time immemorial it has been assumed that when a child is six years of age it is ready for the serious business of the school, and in most cases no other qualification is looked for. Would it not be just as logical and just as pedagogical to say, "The child is seven, it should go to second grade;" and so on? In fact, greater care should be taken in determining the fitness of pupils to enter first grade than for any other grade in the school. If this were done, much of the later haziness, uncertainty, and discouragement on the part of the child would be obviated; also much of the dislike for school which many times comes to those who are *left over* at the end of the first year. My experience has been that these "left overs" work under difficulties all through the school, often become troublesome, and rarely, if ever, do satisfactory work.

In experimenting with this thought in mind, I took two children from the kindergarten — one a few months over five years of age, the other six years of age. Both were strong, healthy children, but of an entirely different nervous temperament. I took them into a first-grade room with a beginning first-grade class. I found a very great difference in their ability to react to the demands of the new environment. In the older child muscular co-ordination was so weak that it was impossible for it to reproduce writing, a simple picture or drawing, or to make simple objects of paper, with any degree of accuracy; while the younger at the first attempt usually produced results quite similar to the copy. The older child could not remember the symbols associated with pictures or actions, while the younger remembered two out of three the following day. In short, at the end of a week's time one could not notice that the older child had made any progress. It could not adjust itself; it was not interested.

The point is that the older child was really less mature than the younger. The time had not come for persistent imitation instead of simple imitation. There was no ability for repeated effort; no ability to hold the presentation in the attention and to compare the results of the first attempt with second and third, etc. Therefore the child was incapable of taking up the first-grade work. On request of the parent, the child was taken from the kindergarten and put in first grade. Results proved what I had anticipated. At the end of four months it was still the kindergarten child — restless and inattentive, because uninterested. The younger child could more properly have taken up the work, yet did not do so until a year later — who can doubt with how much greater gain?

It is not to be inferred that the transition was too sudden. Many of our first-grade teachers nowadays introduce their pupils to reading and numbers very carefully. Nevertheless, owing to the vast difference in the degree of maturity of these six-year-old children, many of them are led to these subjects before there is ability or motive on their part. The motive is the teacher's, and the more ability she has, the less harm there is done.

It may be said that the above are special cases, but I have no doubt that, if principals would look into the matter more carefully, many such would be found. The assignment to first-grade should be controlled by the principal just as those to any other grade. I think there should be a class in every school where these immature six-year-olds could continue working under the kindergarten idea, until the teacher would be forced in self-defense to teach them to read and write.

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A STUDY IN ARRESTED DEVELOPMENT.

I HAVE had a girl in my classes for over a year who has interested and puzzled me very much. She is about sixteen years old, very small for her age, and appears much younger than she is. She left the public schools when in the fifth grade, and then attended a large private school until last year, when she entered the school where I am teaching. I believe she is an only child, and I know that her mother is very ambitious for her.

She first came to me the second half of last year, when I had her in a grammar class and alone in German. I had been warned by one of her former teachers that she could not learn anything. I did not find her stolidly stupid, but it seemed as if her mind must have been paralyzed when she was perhaps ten years old, and she had never used it to any extent since, so incapable was she of doing any independent thinking. She worked hard, and was always attentive and eager to do well. She never volunteered an answer, but if called upon always said something immediately, but without any thought, unless the question was prefaced by the remark, "Think before you answer." In the grammar class she had a conscious way of looking around, after reciting, as though she expected to be laughed at, and would often add, scarcely stopping for breath: "O no, that isn't right!" Her habit of answering without thinking led to some curious results, as when she told me that the plural of "Mr." is "Mrs.", and when she said in sober earnest: "If the subject is that about which something is said, the predicate must be that about which nothing is said."

She could not keep up with the class, and it soon seemed best to give her individual work in grammar; so I divided a period between her grammar and her German; and it was the hardest and most discouraging work I have ever done. I might flatter myself one day that there was *one* point she surely understood, only to find the next day that the same ground must be gone over again. She was constantly on the alert to catch some little external sign by which she might know a thing. For example, I found that she had decided that all words of two letters were prepositions and was working on that principle.

She told me that she had studied German a good many years, and gave me to understand that she was an advanced pupil in that branch. But I soon found that what she had to work with was a small vocabulary and a very well-developed ability for guessing at the relations between words. She had no idea of how to determine the tense of a verb or the case of a noun by its form, and as a result could not write the simplest sentence in German correctly. But when I tried to have her learn to decline nouns and conjugate verbs, I found that it was simply impossible for her to do so. She cannot, and I doubt if she ever will be able to learn a set of endings and remember them for more than a day. Her knowledge of the different forms of words will have to come entirely from their use in sentences.

I confess that when I learned that this pupil was to be in both my Latin and algebra classes this year, I groaned inwardly, and I still think the Latin was a mistake. It was her mother's wish that she should take it. She had been through the elementary algebra with some tears and so little success that it was a question whether she should be allowed to go on into high-school algebra. I started out with two determinations: that she should not fail in both Latin and algebra, and that, if possible, she should get over the feeling that a schoolgirl's life is a burden; for I believe she works as hard as any girl in school. I have tried to give her more confidence in herself and always to make her think before answering. She is succeeding in algebra beyond my hopes, which were not very high. She works examples fairly accurately, though very slowly (her writing and figuring look like that of a young child), but in the problems it is still only the very simplest that she can reason out herself. She constantly gives proofs that, wherever it is possible, she lets some rule or catch phrase take the place of thought. The first of the year she heard some of the girls use the phrase, "two minuses make a plus," and that immediately became her all-sufficient answer for all questions of sign, whether in addition, subtraction, multiplication, or division.

In Latin the case is less encouraging. To learn a vocabulary or declension, as I said before, is an impossibility for her. In writing sentences she can think out the proper case or the proper number of a noun, whichever suggests itself to her first, but to think out both number and case without any suggestions seems beyond her. Her highly developed guessing powers made her work in translation, while the sentences were very simple, fairly good. But I found that she was determining the relations of the words entirely by their order in the sentence. The first word was always subject, then came its modifiers, then the object and its modifiers, and finally the verb. If the first word chanced to be in the genitive case, it made no difference to her, it answered her purpose for a subject, just as well as a nominative. And when unkind fate chanced to give her a sentence where the verb stood first, she transformed the verb without hesitation into a noun of kindred meaning, and went happily on her way. When her vocabulary fails her, her guesses are sometimes surprising, as when she translated "*puer librum habet*," "the boy is generous," on the ground, I suppose, that *librum* sounds like "liberal," and "liberal" is "generous."

Of course, I have a theory as to the cause of this mental paralysis, if I may call it that, though I may be all wrong. I know nothing of her early teaching, but before I had heard the phrase "arrested development," I had decided in my own mind that as a child this girl was probably very small and fairly bright, and appeared younger, and therefore brighter, than she really was; and that unduly ambitious parents, and perhaps ambitious teachers, had pushed her on until she got entirely beyond her depth. Being a patient, uncomplaining child, she did not make a fuss when she could not understand, but simply ceased to try, and gradually built up, as a substitute for understanding, and thought, a system of catch phrases and guesswork, until she almost lost the power of thinking. Inevitably, the result was repeated failures as she got into higher classes and a consequent loss of confidence in herself. The individual work possible in small classes may to some extent repair the damage, but it can never do so entirely or make up for the time she has lost. I cannot but believe that she might have been a fairly good, though never a brilliant, scholar under wiser training.

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SOME FUNDAMENTALS IN THE TEACHING OF WRITTEN COMPOSITION.

A FEW years ago progressive teachers of English had high hopes for the future of composition in the schools. The old system — or lack of system — of long, formal compositions written at infrequent and irregular intervals, of subjects calling for vague moralizing or crude digests of books of reference, of arbitrary and trivial criticism, if any, had given away all along the line to more rational and orderly methods of instruction. Children of twelve were no longer obliged to wrestle with such topics as "Slavery," "Joy and Duty," and "Solitude," as did Mrs. Wiggins's delightful Rebecca, whose teacher told her that "one" and "one's" were more refined in writing than "you" and "yours;" that cats, chips, and milk-pails were things too common to mention; and that she didn't like the idea of "a cow in a composition." The work was no longer handed over to the teacher with most leisure, or farmed out among all the teachers of the school; but was assigned to a special teacher of English, who had charge, it is true, of classes in literature, rhetoric, and composition, but who at least attempted to "correct" the student's written work with some degree of thoroughness. Text-books of "rhetoric and composition" increased and multiplied. Practice in writing was made frequent and regular. A "theme" once a week became the ideal and in most cases the attainment of the schools; while some ambitious institutions, fired by the example of the Harvard "daily theme," provided for even more numerous written exercises. Best of all, the subjects given were no longer unwieldy and remote, but simple and concrete, chosen for their appeal to the child's own experience and interests. It was no wonder that teachers of English, comparing the new order of things with the old, felt confident that the program of constant practice and simple subjects would soon yield large returns in the shape of honest enthusiasm on the part of the student, and freshness, genuineness, and vigor in his writing.

But so far the returns have not come up to these sanguine expectations, and composition teachers of today are somewhat chastened in spirit, and in many cases actually discouraged and baffled. Looked at in bulk, to be sure, the written work in the schools is on a higher level than it was in the old days of haphazard instruction. It contains probably fewer absurdities, and it is undeniably neater in appearance, more correct in the mechanics of paragraphing, punctuation, and capitalization. But these negative virtues seem a slight reward for the sacrifices of time and strength, the gallons of red ink poured out by painstaking teachers upon the papers of industrious and docile pupils. And, greatest disappointment of all, the expected change in the students' attitude toward their work has not taken place. The gifted child undoubtedly finds fuller opportunities for employing his talent, and in every school there are individual instances of vivid, effective writing; but the average boy and girl still find composition the most distasteful of their school occupations, and candidly inform their teacher that there is nothing they hate so much as "writing themes." If the teacher keeps watch of their struggles in the process, he is not likely to doubt the truth of the remark. The results of writing undertaken in this spirit are naturally deplorable. My observation has been that, while most school compositions give evidence of an amiable desire to carry out the teacher's directions so far as understood, in thought they are without form and void. Anything more sprawling in structure, more meager and colorless in presentation, it would be difficult to imagine. I once heard a teacher of a biologic turn of mind despairingly characterize them as "amœboid." In such work the trouble lies too far back to be reached by detailed criticism. Positive and glaring faults would afford a welcome handle. Equally discouraging is another type of composition in which the writer pours out words with a "fatal facility," hoping to impress the teacher and the class by his fine writing. Such a student is usually complacent, and feels aggrieved and unconvinced when the teacher points out his unreality and insincerity. In both types persistent practice seems only to wear deeper channels of limp thinking and slipshod statement. And nothing more greatly astonishes the expectant teacher than the indifferent way in which children write on their dearest and most intimate concerns, about which they will chatter by the hour together.

Betrayed thus by the formula to which we have pinned our faith, it is not surprising that some of us feel at times as if we had come into a blind alley, and are almost ready to subscribe to the assertion not infrequently made that training in writing, except on its more mechanical side, cannot be given in the school. But a comparison with some other kinds of school training and a glance beyond the walls of the schoolroom should disabuse us of this notion. Other types of activity, particularly the arts and handicrafts, are carried on under simplified conditions in the school in such a way as to equip the student for undertaking them in their more complicated forms outside. Never has writing been so normal and so important a social activity as it is today; never has it so closely approached the universality and spontaneity of spoken language. There are few teachers of composition, I suppose, who have not had the experience of seeing pupils of theirs, whose compositions in school were depressingly flabby and inept, turn off in the bracing air of "actual life" straightforward, vigorous written work that hit some particular nail very squarely on the head. But it is unfair to conclude from such an experience that the rough-and-tumble arena of modern life, with its enormous complexity, its inequality of opportunity, its often brutal enforcement of the law of the survival of the fittest, gives the only or the most efficient and economical training to young people in the handling of written language. Such an argument tells against all forms of special equipment, and so overreaches itself. On the other hand, it is equally unfair to assume that the school has nothing to learn from the larger social situation. The very fact that the child who writes listlessly and unwillingly in school may be kindled into eagerness to write outside of school should be enough to show us, if our eyes were not fastened so persistently on the mere writing product, that help in our present difficulties is likely to come from investigation of the child's own attitude toward his writing and of the conditions under which he is set to write.

For us as teachers, however, the best approach to such an investigation is an indirect approach by way of inquiry into our present practice. Hitherto we have accepted the formula of frequent writing on simple subjects pretty much as a rule of thumb. As such its results have not proved satisfactory, and, since no ready-made substitute offers itself, the only course open to us is to examine into its underlying assumptions and presuppositions in order to discover whether we must throw it overboard — in which case some new method of procedure will undoubtedly emerge — or only bring our use of it into closer conformity with its true supporting principles.

There is a good deal of talk nowadays about the importance of having "controlling concepts," "fundamental principles" in the teaching of any subject; and the implication seems to be that the average teacher somehow manages to scratch along without their aid. The distinction, however, lies in the nature of this controlling principle rather than in the fact of its presence or absence. In one case it is a mere unformulated, uncriticised assumption, gathered from books, from the talk of others, from instruction or chance suggestions in childhood. It is often no more than a "bias," but nevertheless it shapes and sometimes warps our practice. In the other case, this controlling concept is itself controlled, and serves as a definite instrument for testing and modifying practice. It is developed through a bringing to light and working over of our "mere assumptions," and the occasion of its development is always some sort of hitch in practice. That such a hitch exists today in our teaching of composition we have already admitted. Our next step must therefore be the marshaling and scrutinizing of its assumptions.

Ask any teacher of composition who is not a mere dullard — and dullards are few in the teaching profession nowadays, and perhaps fewer in English than elsewhere — what he is after, and he will be likely to tell you promptly that he is trying to get his pupils "to express themselves." Ask him why he wants them to do that, and he will flounder for a while among vague generalizations about "culture" and "self-expression as the goal of individual development." Pressed for his views on the nature of language, he will assert that it is an "activity for the expression of thought," a "medium for the expression of thought;" and, if persistently harried, may be driven to admit that this expression is of course for the purpose of conveying the thought to somebody else. But it is easy to see that his aim in the teaching of composition is training in expression, and that this aim is based upon a conception of language as an expressional activity. These two related assumptions dominate his mind and control his practice; and the notion of language as involving communication, while recognized on analysis as implicit in the notion of expression, plays no part whatever in his actual teaching.

Nine-tenths of the instruction in composition at the present time, I think it safe to say, is based upon just these views of the nature of language and the aims of training in writing. The emphasis upon expression is fortified, and perhaps partially justified, by common speech. We speak of "an unusual expression," a person who cannot "express himself," "the gift of expression," etc., etc. Moreover, it is the aspect brought forward in books on composition, even the most recent. Mr. Percival Chubb says in his book, *The Teaching of English:* "Expression is natural and necessary to the child; and wherever there is expression, there is composition. If the medium be words, oral or written, the child is engaged in the process of literary composition." Another book of the same title, the joint work of Professors Carpenter, Baker, and Scott, says: "We use the term . . . . 'composition' with reference to instruction and practice in the art of expression, *i. e.,* essay-writing and similar exercises;" and quotes in another chapter from Professor Meiklejohn: "Writing and speaking are simply two forms of one mental act — the act of expression." I am not now discussing what these writers mean to cover by the term "expression," but simply pointing out that their use of it confirms the ordinary teacher in his unanalyzed assumption that language is purely expressional and individual.

There are scattered signs, however, becoming every day more numerous, of a recognition of the communicatory side of language as more than a mere formal element. Professor Scott, who has long made it a working principle in his teaching, says in his suggestive chapter, "The Philosophy of the Assignment," in the book just mentioned, that the two impulses, to express and to communicate one's thoughts and feelings, are complementary and reciprocal. President Benjamin Ide Wheeler's article on language in the Baldwin *Dictionary of Philosophy and Psychology* defines language as "the communication of thought through speech sounds" ; and says further: "Language cannot be defined as merely the expression of thought, for its character and history are determined quite as much by the consideration of intelligibility as by that of expression. The impulse to express is individual, but the function of speech is social." And Professor Cooley's stimulating little book, *Human Nature and the Social Order,* in pointing out the relations of language and thought, says: "The fact is that language, developed by the race through personal intercourse and imparted to the individual in the same way, can never be dissociated from personal intercourse in the mind; and since higher thought involves language, it is always a kind of imaginary conversation. The word and the interlocutor are correlative ideas."

Here, then, almost on the threshold of our inquiry into the assumptions at the base of our practice, we find two views of the function of language, of which one alone, that of expression, has served as an actual controlling principle, while that of communication has remained a dead letter. If they are in truth fundamentally related, it seems fair to suppose that some at least of our troubles in composition teaching arise from this separation and one-sided emphasis. The other side certainly needs to be brought forward, but to emphasize it by itself would be only to put a new face on the old difficulty. What we must have is a further analysis of both aspects in order to bring out their right relations to each other and to our practice.

To begin with the more familiar notion — that of expression: Just what do we mean by the term? Probably it calls up nothing more than a vague idea of the setting free of some sort of activity, the bringing to light of something not hitherto revealed. To express thought is to bring out by means of sounds or symbols of sounds something that already exists complete and independent in the mind. Modern psychology is with us to the extent of holding that all life involves what may be called expression, and that the higher the organism, the more numerous are its tendencies or impulses toward activity or expression. But it also holds that there is nothing more random and wasteful than bare expression, the mere "touching off" of activity. In fact, it maintains that under normal conditions in higher forms such bare general expression is never found. These impulsive activities begin at once to be co-ordinated and controlled, and so become effective in further development. Organization, not mere relief, the draining off of surcharged activity, is what is meant by growth; and it is through the temporary checking of tendencies to expression that they are worked over into complicated and serviceable co-ordinations. Language as employed by the child of school age is not a mere impulsive activity, but a well-established co-ordination in process of further organization and control. As such, its function is that of organizing thought far more truly than that of merely expressing thought. Thought and language cannot be held apart in any hard and fast way. They are aspects of one reconstruction, and it is misleading to speak of language under any such figure as that of the mere garb of thought. The part that language plays in organizing thought is commonly overlooked in the books on the subject of composition, although we frequently recognize it in experience. It is a hopeful sign that Mr. Chubb lays stress on composition as promoting mental organization.

And what are the conditions, we must ask further, that bring about this organization of impulsive activities into larger and more closely knit co-ordinations? To whatever type of activity we look, we find that the reconstruction comes about through meeting and mastering a particular situation. There is no such thing as co-ordination in general, any more than there is expression in general or thought in general. Speech arises in response to the demands of a particular social situation, and is the means by which that situation is controlled and enlarged. It is at once the instrument and the result of social development. Just in this lies the communicatory, and therefore social, aspect of language. We are only now coming to understand the essentially social make-up of the individual; and it is largely through language that he builds up his social world and his social self, as it is through more immediate sensori-motor co-ordinations that he builds up his physical world.

It is, indeed, easier to recognize this functioning in a particular situation in the case of spoken than of written language. We obviously talk to some particular person or group of persons about some particular thing. We tell them some piece of news; we request aid or information; we try to persuade them that a thing is true or right. The normal situation is familiar, well defined, and in most cases comparatively easy to control. If it is not, the failure is unmistakable, and we pass on to something else or try a new method of approach. The same thing is true of the more directly practical forms of written communication. Letters, telegrams, advertisements, business notices and reports, arise in specific situations and are addressed to a limited and distinctly recognized public. Their character is almost wholly determined by the occasion that calls them forth and the person or persons for whom they are intended. They serve "merely utilitarian ends," as is sometimes slightingly said; that is, ends easily recognized.

It is quite otherwise with the more formal types of writing, with anything that approaches what we ordinarily call literature. Here we forget that written speech came into being originally as a device for controlling a larger situation and a wider public than were possible to control through oral communication alone; although a child's story like Kipling's "How the Alphabet Was Made" were sufficient to remind us. Or else, if we do remember, we hold, with some of our betters, that "origins" have nothing to do with present conditions. Because these conditions—printing, the telegraph, the railway—have expanded the situation enormously and multiplied the number of people involved, we assume that the situation has ceased to exist, or at least to determine the mode of writing, except in the vaguest way. We love to imagine the writer—novelist, essayist, or poet—as a superior person consumed with an irresistible desire to pour forth his thoughts and feelings for his own satisfaction and relief, and oblivious or scornful of the public. A little inquiry destroys this sentimental illusion by revealing the fact that the majority of literary men have written to meet the pressure of a particular situation — which does not necessarily mean that of gaining their immediate bread and butter — and that more often than not they have had in mind a very specific public, and frequently some one person. While it is undoubtedly true that no piece of literature has ever appealed to that thin abstraction "the general public," it is equally true that it has always appealed to one of many "publics." The different magazines or the newspapers of any large city show pretty conclusively the existence of such publics.

And what is the bearing of this long discussion upon our specific problem of composition in the schools? Just this: The ignoring of the situation underlying and conditioning every large literary product has led to an overlooking of the organizing and communicatory or social aspects of language, and a consequent over-insistence upon the expressional and individual aspects. These aspects, and others due to the situation, but not recognized as such, have been generalized and formulated as principles of literary criticism and practice; and then carried over from the world of literature proper, a world of mature and distinguished achievement, into the school world of immature and tentative effort. What we think we are doing is to criticise our students' writing by certain accepted literary principles and standards; what we are really doing is to demand that they shall achieve results brought about only through the largest and most complicated sorts of social situations. We do not recognize that our so-called rules of rhetoric have lost their vitality by being cut away from their source; our students, of course, do not see that there is any sort of normal situation present; and, even if they did, have not reached the stage of organization where they could enter into it, much less manage it. The result is that we spend our time in futile efforts to make them "express themselves" about a world of things that furnish them with no stimulus to expression; and they spend their time in chafing under this bewildering state of affairs and in groping attempts to meet our incomprehensible demands.

The only actual situation in which the child finds himself is the painful and abnormal one of being obliged to employ an imperfectly controlled and infrequently used co-ordination, that of hand-writing, in order to say something about a subject, in which he may or may not feel an interest, to someone who, he is tolerably certain, is not interested in the subject. It is difficult to conceive a situation more conducive to repression rather than to expression. At first it is likely to result in almost total inhibition. "Frequent practice" may lessen its terrors; but it certainly adds nothing to its reality or intelligibility. And the "simpler" the subject, the closer to the child's own experience, the more often does the writing upon it strike him as a solemn farce; although, of course, he does not phrase it thus to himself. Why should he write about his dog, or his going to the circus, or the schoolroom, when the other children play with Rover as much as he does; have either been to the circus themselves or been told about it in excited whispers and at recess; and are all, together with the teacher, in the habit of seeing the schoolroom for at least four hours a day, five days out of the seven? The teacher's interest in these things, the child's common-sense tells him is manufactured for the occasion. He has had enough experience with grown people at home to detect the difference between sham interest and real. I am intentionally putting the case in its extreme form. There is, of course, a vast difference between well-chosen and ill-chosen subjects within the field of the child's experience; and the teacher's interest is often genuine enough; while his tact and sympathy may have won the hearts of his pupils, and made them plastic material at his hands. But when all is said and done, the motives for writing in most schools remain either pure compulsion, or a desire to shine before the class, or to show affection for the teacher and win commendation in return. The joys of workmanship, of construction, are dormant in composition, I am inclined to think, longer than in any other form of school occupation. Of the teacher's motive of equipping him for later life the child has, of course, no conception. And so all his stimuli to the writing activity in school are inadequate or illegitimate; and the natural stimulus, the necessity of controlling in this way a situation in which he is vitally involved, never once presents itself, or only in the most casual manner. This is why the child writes better at times out of school than he does in school; and why this successful impromptu writing in face of a real demand, taken together with his attitude of passive rebellion in school, are such important guideposts in our search for a new outlook upon composition teaching.

Successful writing, I take it, is what we are after; so the question before us at this point is simply whether we can introduce into the school, as a regularly employed means of gaining this desirable result, the social situation that produces such successful results sporadically outside of the school. Such a procedure would be strictly in line with the position of modern education, which holds that its purpose is not to put the young into the possession of ready-made results, won in the experience of the race or of the mature individual, but so to simplify and control conditions that they may win the results themselves with only a small degree of the original friction and waste. What we are all trying to do is to supply the proper stimulus, the proper situation, for the fullest development of useful activities, particularly those of large social value. The writing activity, as pre-eminently social, certainly merits this treatment, in order to set free its normal values; but it has heretofore been attempted only in isolated instances, and chiefly outside of the realm of secondary education.

The reasons for this are, first, the failure to recognize the "situation" and its advantages in language training; and, second, the practical difficulties of employing it under present educational conditions. This second consideration is the one before us now; and it cannot be denied that the objections are weighty. But such objections by no means imply that it is useless to keep the idea in mind as a controlling principle. To have a point of view and to attempt to apply it, even imperfectly and with scant immediate success, is the only way to tackle practical difficulties and to bring to light the flaws in a point of view.

The most obvious difficulty of this sort is our poverty of social situations at once within the grasp of the child and demanding reconstruction and control through writing. In spite of all that has been written and talked about the social function of the school and the development within it of community spirit, the fact remains that in the average school as yet there is, on the part of the teachers little consciousness of the one or attempt to foster the other. School is still to most children a more or less disagreeable place where they come to recite their lessons; and their important businesses to their own minds lie entirely outside it, unless there happen to be an external connection by way of athletics. Even in those fortunate schools in which the community idea flourishes and determines practice, the little social group is so small, its activities and problems are so simple and circumscribed, that they are more naturally controlled by other means than that of writing, or, if by writing, only in a few narrow and stereotyped forms.

It is easy to exaggerate this difficulty, although it is very real. But the school is not a closed community. The child is in free circulation between it and his family and the larger world outside. Moreover, he is at an age when imagination, especially in its dramatizing aspects, is very strong; and he has begun to circulate in the world of literature. All these worlds overlap and play into one another. The teacher who studies the child's resources with the "social situation" in mind soon finds that many opportunities for putting him face to face with one suggest themselves. The child has had little adventures while away on a journey that the other members of the class would like to hear about and compare with their own. He knows how to make something or to play some game that another is eager to learn. He must tell a member of the family away on a visit of the happenings at home and in school. He likes to "play" that he is somebody else and to imagine himself in this assumed character as manipulating other specific characters, real and imaginary. For the most part, of course, the situations in which he is or can easily be made a controlling influence are simple, involving only himself and one other person or a small group of familiar persons, members of his family, playmates, "book-people," his class, his teacher. His feeling of protest against having to *write* to people around him, instead of talking to them as he would more naturally do, can be done away with by a weaving in of special circumstances in which the substitution of writing for speaking is essential or possesses special advantages. After a time, such suggestions may come from the class. Children delight in constructing situations for themselves; and wise direction and management by the teacher will guard such work from running wild and wasting class time and energy. In general, the possibilities of making the child's writing the outcome of a definite situation are limited only by the teacher's alertness, tact, and resourcefulness. Actual school and home conditions of the children must determine the particular problems presented. The one thing essential is to make every piece of writing a problem, to be solved with reference to a specific occasion (real or imaginary), and for a specific audience (real or imaginary). The one thing to avoid is to set children to writing "at large" with no situation in mind except the arbitrary and unreal one of handing in a "theme" to the teacher for the sole object of having it marked, corrected, and read to a bored class.

Here, however, as elsewhere, there are typical dangers into which even the thoughtful and zealous teacher is likely to fall. Practice nominally based on the soundest principle may become thoroughly artificialized; and the only safe course is to test practice by principle at every step. Especially is this true when we are only just working out the technique of a method. The situation presented is only too likely to become a mere formal device, so that the children look upon it, not as something in which they play a necessary part, but as only another mystery attached to composition writing. The teacher, however much he may try to look at things through the children's eyes, has his own habitual adult standpoint, which leads him frequently into the selection of situations that he thinks *ought* to stimulate the desire to write, but that strike the children as far-fetched and unreal. Perhaps the greatest source of this feeling of unreality on the part of the children is that the composition written — if the situation has supplied a genuine stimulus—in an honest effort to meet the need of some particular person for what the writer has to say, is, nevertheless, not submitted to that person at all, but to the teacher and to the class, just as under the old method. This leads to an uneasy sense of a double standard, of having been juggled with, and eventually to a disregard of the presented situation altogether in favor of the only actual situation, that of the classroom. This is a serious danger and perhaps inherent in this form of controlling the child's practice. But it is not so serious as many of the evils of the older system, and it may be obviated, or at least minimized, in various ways. One of these is frequently to make the teacher and the class together or separately the actual public addressed. This does not mean that they are to pass sentence on the piece of writing in the old dogmatic fashion; but that the subject is something about which they really wish to know and about which a member is especially fitted to tell them. The class becomes for the time a little club to which first one and then another contributes his share. The teacher, too, sometimes may become the audience, though usually in his social rather than in his strictly professional character. One of the best sets of themes I ever had from a class of girls was when I asked them, shortly after the end of the summer vacation, to help me in my search for a simple and inexpensive cottage in the country that I, with two or three of my friends, teachers like myself, might rent for the next summer. I gave them some idea of our tastes, means, and preferences in regard to location; and they wrote me fresh, vivid descriptions of places that they thought might suit. Another way of making the situation genuine is by submitting the piece of writing to the actual outside person or public for whom it was written. This can be done in various ways—by exchanging papers with other schools or classes, for instance. The plan in active use at present among teachers of modern languages of having students in one country exchange letters with those in another affords an excellent example of this method and of the stimulus given by a real need for communication. Still another way, to be employed more sparingly of necessity, is to give the piece of writing, if it be description or narration, to someone to illustrate.

A water-color sketch made from the theme by a person who has not seen the thing described is a striking test to the writer of how far he has succeeded in solving his problem of communication. But whether the actual person addressed be available or not, it should always be possible for teacher and class to put themselves imaginatively into his place and to test the work in terms of its success or failure in meeting the situation that it set out to meet.

This brings us face to face with the greatest advantage of thus conditioning the student's writing. It enables us to criticise in terms of the situation itself, instead of in terms of abstract principles derived from writing originating in other and larger situations. This does not mean that the two kinds of criticism are fundamentally antagonistic. Their origin is one and the same. But an examination of the reasons for his success or failure in different pieces of his own writing will gradually enable the child to formulate roughly the working principles of successful practice, and will thus give him a basis for the interpretation of "rules of rhetoric" which remain inoperative for him so long as stated in such unconditioned form, for instance, as the laws of "unity," "mass," and "coherence."

The importance of criticising in terms of the situation cannot be overestimated, although I have not space to dwell upon it here. It supplies, in fact, the principle of organization without which the "situation" would be as barren of results as our old formula of "frequent practice and simple subjects." For it is not enough to stimulate the child's temporary interest. That may be done in a variety of ways, some of them ultimately hindering development. The situations suggested should be so chosen and ordered by the teacher that they present a series of problems, each involving a definite kind of control and increasing in complexity until they approach the organization of the types of literature from which our rules of practice are derived. At each stage the child can be made conscious to some extent of the method he is using, and in the later stages can attempt pretty definite formulation. At every step he is helped to this by comparison of his methods with those employed by other members of the class in dealing with the same situation and with those employed in literature of the same type. While the use of literature as an antecedent model tends to paralyze effort, its use as a subsequent basis of comparison is invaluable. In the same way the student may reinforce and clarify his formulations by comparing them with those in books of rhetoric.

And what, in conclusion, shall we do with our suspected formula of practice, "frequent writing and simple subjects"? As stated thus, its value is indeterminate. But in the light of the survey we have just made we are entitled, I think, to say that the student should write as frequently as he can be furnished with a real situation, an adequate motive for writing; and that his subjects should be simple in the sense of being inherent in a situation that he is able to meet and to control.

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FUNDAMENTAL CONCEPTS OF ENGLISH GRAMMAR.

BEFORE the vernacular of the people displaced the *classic* Latin as the principal language of instruction in our schools, one heard or saw nothing of the diversity of opinion or opposition in theories regarding the nature of the concept of grammar and the method of its teaching. There was but one concept and but one generally recognized method of correct grammar instruction. This absence of contention was owing to the fact that the grammar teaching of the time was successful. And this success was due to the conformity of the method of teaching with the concept of the nature of the subject held by school-teachers at the time.

When, however, the vernacular became the dominant language of the schools, a language radically different from the highly artificial and the mechanically constructed Latin, as to its basis, unit, and method, grammar appeared to become a very difficult subject, the teaching of which was attended with great meagerness of results, a paucity which is responsible for the present worry and confusion existing in the minds of grammar teachers. The present failure of grammar teaching is due, not to the greater intrinsic difficulty of the English language, for such difficulty does not exist, but to the adherence of teachers to their concept of the nature and method of Latin grammar in the teaching of a language whose nature and method of development depend upon radically different principles.

There is, no doubt, a generally prevailing consciousness among the teachers of the country of the inadequacy of their efforts and methods concerned in the teaching of grammar, but ideas as to the source and cause of the difficulty are, among the rank and file of teachers at least, still very vague and indefinite. The ancient concept of grammar, which may be designated the Latin concept, still dominates the majority of teachers in their work of grammar teaching. Such a belief is strengthened by the examination of the text-books of grammar most extensively in use throughout the country as the regularly adopted books. A perusal of these books shows that their makers have a knowledge of the true nature of English, as their phrasing of fundamental principles indicates; but that this knowledge is not clear or definite is also shown by their treatment of the mass of detail forming the body of the books, which proves that the dominant concept which determines and molds the spirit of the books is still the mediæval Latin concept of grammar.

The basis of this conception of English grammar is the same as that for the Latin language, viz., a system of inflections and associated rules of syntactical agreement. A highly developed system of this kind is necessary when the word, as the unit of the language, is made to perform alone the complex function of expressing, not only a thought-general modified by thought-particulars, such as gender, number, tense, and case, but at times an entire judgment. When the single word is given so important a function, it is easy to see how the attention of students would be naturally withdrawn from the thought expressed to the complex and artificial structure of the expression, and not only how a knowledge of grammar was under such circumstances indispensable to "correct speaking," but how the teaching of the grammar of such a language could develop correct speaking and have such an end as one of its legitimate purposes.

An examination of the structure of present-day English, as found in the usages of the people and in the literature of the language, reveals the existence of the practice to give expression of each particular thought-element by a separate word, which removes the necessity for inflections and their associated system of agreements, and accounts for the disappearance of most of the inflections which in the former periods of the history of the language, were to a high degree the basis of its structure.[1] For of all the endings to show case, the genitive remains alone for all nouns; for pronouns, the nominative and accusative singular of the first and third personal pronouns alone remain; all inflections for gender have disappeared; number is denoted by the single ending *es,* frequently changed to *s;* inflections of verbs have been restricted to the various forms of *to be,* and for other verbs to the third person *s* in the present tense, *d* or *t* in the past tense and past participle of regular verbs, and a rare occurrence of *en* in some irregular verbs; the subjunctive has lost all inflections; the adjective has lost all of its original sixteen forms for the positive; the comparative *er* and superlative *est* remain alone of all the adjective inflections; the articles have lost all their endings. There remain, in addition, the inflections of a few "survivals" and of those words borrowed directly from a foreign language.

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[1] E. A. Allen, "English Grammar Viewed from All Sides," *Education*, Vol. VII, p. 460.

Although the inflections have largely disappeared in real English, the grammars still make much of them as an important part of English grammar. They dwell with still greater emphasis upon the rules of syntax associated with the completest use of the inflection system, although these rules have no longer any application to the practical use of English. The modern grammar is padded with an abundance of such rules; *e. g.,* the subject of a verb is in the nominative case; and a verb agrees with its subject in person and number. Along with the elaboration of an inflection system and an antiquated body of syntax goes the deductive method of teaching — a method whose use is made necessary by the absence of the facts and data of which they treat in actual life, where they can be made the objects of concrete observation and inductive generalization. So I consider as entirely just Mr. Lang's[2] characterization of the "Latin" concept as one having the wrong basis, the wrong unit, and the wrong method. It is a concept without a universally organizing principle, since it does not apply to the facts of English. It is static instead of dynamic, since it has no correspondence with the nature of a living, progressing speech, whose tendency is to become continually more closely adapted, as an instrument, to the freest performance of its functions.

In forsaking the formal concept of grammar as one untrue to the nature of English, we are compelled to look for some

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[2] S. E. LANG, "Modern Teaching of Grammar," *Educational Review,* Vol. XX, p. 294.

of analogous inflections and agreements. Even when viewed in the true light, there is probability that the sentence and the corresponding thought will be imaged as mechanically associated segments, if the study is approached in the first stages from the external rather than from the internal or thought side. It is certainly true that sequences of functions or tensions, as found in the thought-process, cannot have a spatial representation without the introduction of artificiality. The important thing in the beginning of grammar teaching is that the spatial images be not made prominent, but that the internal side, the thought-process, be so emphasized that the artificiality of its spatial representation be lost, or at least not be taken account of. Thus we are driven to use an inductive method in grammar teaching — a method, in this instance, which must begin its observations with introspection of the thought-process, advancing outward in its development to the externalized process, the sentence. I think that the "segmented" notions of thought and sentence structure would never arise in the minds of children if the formal concept teachers were "called off," so to speak, and the children were left as regards their development of a language-concept in the state of nature. Naturally there is no strain in children between their thought and its expression; and if they were left alone in this regard, they would evolve a true, though simple, system of grammar from their own consciousness and feeling of their thought-forms and relations. If they are able to do this without special instruction, how much more complete, extended, and amplified will this naturally evolved concept become when it is guided in its development by a teacher who is aware of the fundamental principles of its growth, and who conforms her methods to these principles!

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ARRESTED DEVELOPMENT IN THE STUDY OF LANGUAGE.

SECOND only to the power of thinking is the power to use that with which we think and by which we express our thoughts to others — I mean language. From this point of view, there is a great field of work for every teacher in breaking up mispronunciations, misconstructions, the use of senseless or vulgar slang, undesirable colloquialisms, in establishing the exact meanings of words, and in overcoming as far as possible that almost national tendency of ours to be content with an extremely limited vocabulary. And yet, right here is the possibility, through over-attention to the form side, of seriously handicapping an individual. Dr. Harris speaks about the injury that may be done to the minds of young people from fourteen to eighteen years of age by undue concentration on the grammatical forms and structure of sentences, resulting in such arrested development that they leave school without having gained the power to lose sight of the grammatical forms and structure, in appreciating great thoughts and literary style and finish.

This placing the age between fourteen and eighteen indicates a supposition on Dr. Harris's part that the study of grammar is begun at fourteen years. In many schools work in technical grammar is begun in the sixth grade where the average age is about twelve years, and in some schools even in the fifth grade, where children are ten and eleven years old. I wonder if it would be possible to estimate the probabilities as to the increase there would be in the proportion of those boys and girls referred to by Dr. Harris, if the study of grammar should be begun at eleven instead of fourteen.

In the classes in my charge one year there were two marked illustrations of arrested development in the study of the Latin language resulting, I believe, from undue concentration on declensions, conjugations, comparisons, and the syntax of words whose syntax in the mother-tongue was not pivotal as to the meaning of the sentence. Those two pupils of mine would, if asked the syntax of a word, the spelling of which merely makes it evident that the case is either dative or ablative, begin tentatively by stating that the word is "dative." If there was no look or show of opposition from myself or any member of the class, they would run glibly through the entire list of all possible datives, on the principle of "Take your choice, one is as good as any other." They had a very definite idea of what the study of grammatical forms means. To them it meant simply knowing grammatical forms as the end and aim of the study. They had learned the forms thoroughly as forms, but the probabilities are very slight as to their ever arriving at a comprehension of the use of a knowledge of forms as a means to that greater end—to get at thought. The method which I used to remedy this fatal glibness and arrest was to hold the pupil to giving the *meaning* of each dative which had seemed to be merely an empty name to her, and then to get her to use it in her sentence, all the time endeavoring to make her realize that we were searching for thought.

Since becoming interested in this question of arrested development, memory has brought before me a striking illustration of the result of my own efforts in the early part of my work as a Latin teacher. Everyone will admit the need of familiarizing pupils with the idioms of the language which they are studying. A certain boy proved himself an unusually apt pupil. He delighted my heart, attracted the attention of a number of visitors, and was the envy or admiration of many other pupils in the large class, by reason of the ease with which he made himself at home in Latin. He was felt to be a mainstay in the Latin prose class—always ready to change the English wording into the Latin idiom for any other pupil who possessed no such *feeling* in language. This eminently satisfactory state of affairs lasted for two years, and long enough into the third year to clinch the new and delicate uses of the subjunctive mode in Cicero. Then a rather large group of pupils in his class who had always done good, though not brilliant, work in Latin found that they could read Latin at sight quite rapidly, and they became much interested in Cicero's correspondence with his family and friends, and also some orations not usually read. This reading was, of course, done mostly for the thought; and now the star Latin pupil only occasionally warmed to the fray. He was not particularly interested in what was read, and would have preferred to spend more time in turning over and over a subjunctive's possibilities to losing himself in following the train of thought of the author. I tried in my disappointment to rap him into a realization that a large part of our previous effort had been put forth in order to gain the power to read Latin, but he was irretrievably lost in the *process*. The climax of our mutual dissatisfaction came in the spring of that year. He was chosen to deliver the Decoration Day oration. He brought me his oration written out ready to memorize, and with sweet serenity asked me to see how I liked it. Such Latinized English was never seen before, I think. There was, I rejoice to state, a genuine warmth of patriotic feeling, but couched in datives of reference, accusatives of specification and exclamation, ablative absolutes, and verbs of mental distress, to say nothing of subordinate clauses galore, which lumbered laboriously along, each showing, by interlardings and various twistings and turnings of language, whether, if causal, its authority was the writer's own or not; or, if relative and characterizing, whether its antecedent was considered complete or incomplete; or whether, if temporal, pure time or the situation of affairs was uppermost in thought; and so on and on.

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INTROSPECTION AND FIGURATIVE ENGLISH.

TEACHERS of psychology who, like myself, have not taught academic subjects for some years are likely to feel a reluctance to advocate a special method for any particular subject. Within the limits of the normal mind there is too much variation for us to say beforehand that this or that device will be valuable in a given case.

My attention has, however, been called at various times to the connection between the process of thought itself and the ability to express that thought, and certain questions have been raised in my mind, of which I should like to present one to teachers of English. Can a student who uses lifeless, prosaic English be taught to use vivid, racy language by directing his attention to the actual sensations and the subtle associations connected with them which the subject of his theme arouses?

I tried this experiment on forty college students: I gave them pictures — a few engravings of Greek statues, but principally colored scenes from Japanese life — and asked the students to describe the pictures, allowing ten minutes for the writing. I then asked the students to notice the impression which the pictures made upon them, and to describe the pictures through the sensations and images so aroused. Some of the students misunderstood me, and described only the trains of thought aroused by the picture — such as other pictures, experiences of their own, etc.; yet seventeen out of the forty descriptions were distinctly better the second time than the first. Lack of time has prevented further experiment, so that I can give only this one set of papers in illustration of the theory.

The following papers show the character of the change:

Picture 21, No. 1: "Before me is represented a man's head, probably the picture of some Roman or Grecian warrior or magistrate. The hair is hoary and clustering, yet without conveying an idea of curliness; the brow broad and high; the nose a straight, well-shaped one; the lips full and prominent giving an impression of sensuousness and pride. The whole face is strengthened and characterized by the firm jaws and chin. An idea of athletic strength is conveyed by the muscles of the neck and throat."

No. 2: "The picture means to me a typical Roman, neither the best nor the worst of his nationality, with some vices, yet, notwithstanding, brave and upright according to the standard of his times. His picture calls up the associations of the games or contests in athletics, the Roman senate, the conquests of the empire, what I know of the Roman forum, the form of worship, and the temples of the gods. In fact, it is a genuine picture of Roman life."

Picture 10, No. 1: "The picture represents to my mind a rather aged Japanese man with all the typical features of his race. His narrow-slitted eyes are downcast; his small mouth is tightly closed and expressionless; his hair is curled tightly over his head in ringlets in total contrast to his mustache, which is straight and rather long. His gown is a long robe, flowing and of oriental coloring, displaying a short and fat neck. . . . ."

No. 2: "My first impression as I looked at the picture was one of repulsion, for the face of the man portrayed is hard and as cold as is possible for such an expressionless face to be. A leering smile seems to hide behind the features, and the whole positon of the form brought to my mind the offering of a sacrifice, a human sacrifice, of one whom the man hated and despised. He makes me feel as though he was delighted at having perpetrated an inhuman deed. . . . ."

Picture 5, No. 1: "The picture is rather weird and gives one the impression that the Japanese woman, whom we see sitting in a boat with her eyes cast down upon some object, which looks as if it might be a baby done up in Japanese style. In the distance we see a drooping tree of some sort, which appears to bend away over in the stream. It has long, shaggy limbs, and appears to have some sort of insect upon it. The boat seems to be pushed up against some steep rocks which are covered with moss.

The woman is well wrapped up in flowing robes. Her long, straight, black hair is streaming down her back, and upon her head is a headgear of gold. The expression upon her face is one of sadness."

No. 2: "When I look at the picture, my mind travels to someone in trouble, for I believe this poor woman has lost her friends and is left in the world by herself, and probably with no money. It seems as if she must have been driven by some enemy, and perhaps the enemy is after her child. It seems as if it were some of her husband's people.

This is brought to my mind by a story of somewhat this nature which I heard not long ago. It impressed me with horror and I have thought frequently of the poor woman, and when I looked at this picture, the whole story came into my mind afresh, and it seemed almost as if this was the reproduction. . . . ."

Notice that in the second description in each case the meaning of the picture is brought out, while in the first there is an external, mechanical, and lifeless description of the objects, except where the student unconsciously verges upon the method consciously employed in the second account. In the second there is an approach to vividness, and to imagination and symbolism.

If a student can thus be led to use more vivid words by watching his sensations and images, what is the rationale of the procedure? It seems to me that it may be thus: We all think in terms of images, though in some cases the images are much abbreviated, and in others the image of the object is replaced by the purely symbolic word-image. Still, in any relatively new experience the image is the first thing to come to consciousness to surround the new sensation with a halo of meaning. This image, or rather these images, are by no means always distinct, nor are they always referable to the same sense as is the sensation which we are receiving. There are all sorts of subtle bodily reverberations, the product of ancestral experience and of personal experiences that long since passed below the threshold of clear consciousness. There are connections between sight and smell, sight and sound, and between all the senses and movement, which, when objectified, give rise to striking and beautiful figures of speech.

These connections appear to exist to some degree in all people, and so it would seem that one of the essentials for writing picturesque English — perhaps *the* essential — is only some ability to see what is going on in the depths of one's own mind. Is this so or not?

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THE HISTORY OF THE VERNACULAR IN EDUCATION.

I.

> "FROM one point of view the significance of the development of modern education can best be estimated by the progress of the mother-tongue toward the central place in formal instruction. When the study of the mother-tongue and its literature is made the core of the curriculum, education is something quite different from that training in which a foreign, perhaps an ancient, tongue holds the chief place. No people is intellectually independent until it has a language and literature, all its own, worthy to be an educational instrument and an educational end."[1]—NICHOLAS MURRAY BUTLER.

THIS ideal of the place of the vernacular in modern education has not long been realized. It is only a few centuries since Latin, with a modicum of Greek and mathematics, was not only the instrument, but also the chief end, of education, and the whole European world was in complete or partial intellectual bondage to an ancient régime which it viewed as pre-eminently "classical." I wish to trace out some of the steps of the transition from the domination of Latin to its proper subordination within a system in which the vernacular has become, not only an end of education, but also the chief vehicle of instruction.

I will make a brief general statement of this process as a preliminary to the more detailed discussion of the subject. The whole movement has been marked by several distinct, though overlapping stages. The vernacular has its first development, its decline, its renascence, and its final independence. With the breaking up of the old Roman empire the development of the vernacular received an impulse which made itself felt especially in the realm of popular literature—that of romance, song, and devotion. Becoming significant as early as the ninth century, it attained the zenith of its early development through the various countries of Europe at different times within the twelfth, thirteenth, and fourteenth centuries. The Revival of Learning gave an added impulse to the study of Latin and Greek, which was responsible for the withdrawal of the educated classes from the field of vernacular literature and a consequent decline in the literary use of the vulgar tongue. This period of decline, comparatively short in Italy and longer in the rest of Europe, was followed by a renascence of the vernacular, in which the fruits of classical study were an important factor in the enrichment and embellishment of the vernacular vocabulary and style. But before this mother-tongue, which has already entered the field of literature, can win its complete independence and take its place in the school as *par excellence* the vehicle of instruction and itself holding an honored place in the curriculum, two things have to be shown: (1) that there are subjects of study, a body of knowledge, which can be studied in the vernacular to as good or better advantage than in the current Latin of the schools; (2) that this vernacular both as a language and as a literature is worthy of study. The fulfilment of these two conditions has been a long process, foreshadowed in the Middle Ages, seriously beginning in the sixteenth and seventeenth centuries, and continuing down pretty well to our own day. The cause of the vernacular in elementary education was fairly won in the seventeenth century and the early part of the eighteenth. But the movement of the mother-tongue toward its rightful place in the secondary and collegiate curriculum is one that has but recently culminated, if it may be said even to have culminated as yet.

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[1] Editor's Introduction to CHUBB's *The Teaching of English.*

Taking up now the more detailed study of our topic, we shall begin with the period of the early development of the vernacular —the period of the Middle Ages, or the pre-Renaissance period. Wherever the Roman power went, it stood for the unity of law, and later for the unity of religion; but the unity of language was never achieved. The Roman law and the Christian religion, penetrating to every part of the great empire, carried with them the Latin tongue. But underneath the Roman institutions there always throbbed the life of the subject peoples, flowing on in all its customary activities through its ordinary channels, and finding linguistic expression through its own mother-tongue. That is, the Latin was imposed upon the masses from without, and had never become ingrained; while their own dialects were warm, intimate, dynamic. We might expect, then, quite naturally that, as the literary interests of the common people developed and grew, a demand would be created for works in their own vernacular; while at the same time both imperial and scholastic interests would find their literary expression through the Latin tongue. Thus, side by side for a long period of years, there were in use two different languages, each representative of a distinct social status. A great gulf was fixed between the learned and the unlearned. The gulf could be crossed and the paradise of learning entered only by those who could use the Latin chart. So long as education was all through the medium of an ancient language, it was the prerogative of the few. The history of the movement of the vernacular toward a central place in education is also the history of the universalization of education.

Under the régime of feudalism it did not so much matter that all learning was locked up in the ancient languages; that books containing, or supposed to contain, all human knowledge were all in Latin and Greek. When all books were manuscript copies, in whatever language they might have appeared, their limited number would have rendered them practically inaccessible to the vast majority of the people. Even if all books had been written in the vernacular, or if all people could have been taught to read Latin, still there would not have been much stimulus to the learning to read and write, if, after they had painfully acquired the accomplishment in the schools, there was to be no opportunity to exercise it out in life. Not until the invention of the printing-press were conditions right for rapid progress in the direction of universal education, whatever language be made the medium. Even if books had not been inaccessible to the many, yet their manner of life was simple, and demanded little more in that line than could be easily furnished orally by the songs and stories of the wandering minstrels and by the homely exhortations of the priest. The beginnings of the vernacular literature were undoubtedly oral. Yet out of these humble beginnings a literature closely in touch with the lives and sympathies of the people grew up all over Europe, and came to have gradually a more or less permanent, and ultimately even a written, form. The first period of its development begins about the ninth century and extends to the fourteenth.

It is noteworthy that literature in the mother-tongue reached its greatest height during this period in two parts of the old Roman empire which may be regarded as extremes — in England, which was most remote from the source of Roman authority; and in Italy, which was the very center of that ancient power. England had been for only a comparatively short time under Roman domination, and since that time had been almost transformed by the infusion of new blood which had never known the rule of Rome. When the final breakdown of the Roman power came, the Anglo-Saxons were not living under the glamour of the empire. Latin culture had its stronghold in the clergy alone, and the vernacular was much freer than in other countries to develop according to its own genius. While the Latin language was regarded as the great depository of learning, the impetus toward the use of the vernacular in England was very strong. Alfred the Great was an advocate of the mother-tongue, and himself set the example of its use for literary and cultural purposes by translating, or causing to be translated, the *Universal History* of Orosius and also Bede's *History of England*. He is reputed to have been the author also of translations of certain portions of the Scriptures. During the Anglo-Saxon period the national sense began to find expression through the vernacular. The Anglo-Saxon *Chronicles* were begun, though not completed until the Norman period. Poetry in the mother-tongue was also represented in Caedmon's poem of the "Creation." A century of decline set in with the Norman conquest. But out of the amalgamation of races and languages there sprang up, in the fourteenth century, a new and fairer vernacular literature, the chief representatives of which were Langland's *Piers Plowman,* Sir John Mandeville's *Travels,* Wycklif's translation of the Bible, and Chaucer's *Canterbury Tales* — the latter, at least, still ranking as an English classic. In England, then, even before the Renaissance the literary use of the vernacular had attained a high degree of excellence.

In Italy also, during the period preceding the Renaissance, there were forces at work destined to produce a vernacular literature of high rank, surpassing in finish and literary merit the work of Chaucer. The struggle for the vernacular in Italy, however, was slower and more toilsome than in England; and before the mother-tongue could reach its high fruition in Dante, Petrarch, and Boccaccio, it had to receive inspiration and impulse from France and other northern countries.

Various influences were responsible for the slow development of the vernacular in Italy. In the first place, the Latin language had more fully dominated the dialects of the peninsula than it had those of the north. Through the long domination of Rome its language had almost absorbed the native Italian dialects. Traditions of Roman secular education lingered long in the Lombard cities. But further than this the native races had been fully nationalized (Romanized). Even after the fall of the empire they still lived under the glamour of the great and noble past. The traditions of the republic and of the empire were *their* traditions; they cherished them and gloried in them. Their attention could not be so easily caught by the newer, popular, and more imaginative epics of chivalry which pleased the ear of the northern peoples and created a demand for their recital in their own tongue. These were, after all, a poor substitute for their own Virgil and Horace and Cicero, even though their knowledge of these classics may have been very vague and traditional. Furthermore, feudalism, with its accompanying institution of chivalry, never took a very firm root in Italy. It was the deeds of chivalry which fired the imaginations of the northern peoples and were the occasion for a large part of the outburst of popular song. Symonds says upon this point: "Not until the Italians under the sway of the Hohenstauffen princes possessed something analogous to a Provençal court were the right conditions for the development of literary art in the vernacular attained."[2] The impetus to a new point of view demanding expression in a new literature was slow in making itself felt. The consciousness of national unity and aim was lacking, or but dimly felt. Italy was for a long time in a state of political unrest incident to the Wars of Investment and Independence. This was unfavorable to literary development. The cohesion of the various provinces was one that expressed itself in harking back to a common glorious past, rather than in a feeling of present solidarity. With the failure to acquire national unity there was the accompanying failure to evolve a common vernacular. Each district clung to its own native dialect, or variant from the literary Latin.

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[2] Renaissance in Italy, *Italian Literature*, Vol. I, p. 6.

While the Italian vernaculars were slow to develop and tended to diverge from one another, yet the gulf between them and the Latin grew wider and wider under the genius of peoples adjusting themselves to new social, political, and industrial conditions. But these Italian dialects did not seem to have vitality, grace, and power enough to make them serviceable for literary purposes until they had come under the influence of foreign literature and the stimulus of the attempt to make them a vehicle for the expression of a new nationalism. In the langue d'oc (Provençal), of southern France, a considerable body of vernacular literature had grown up, comprising love songs, battle songs, and satires, written in refined and courtly lyric verse. Provençal singers carried their songs and tales over into northern Italy, where they became popular, especially at the semi-feudal courts. Troubadours or wandering minstrels brought also the hardier and more virile literature of the langue d'oïl, of northern France. The *Chanson de Roland* and the Arthurian legends became popular at courts, and the *chansons de gestes* of the Carolingian cycle among the common people. Through the blending of the Provençal, the northern French, and the Italian dialects the latter were refined, and a literary Italian was evolved. The same sort of process was going on in the south of Italy in the Sicilian kingdom, where foreign influence came in with foreign rulers. The Norman king, William II. (about 1166), was a patron of Sicilian poetry. The Provençal popular literature came in, not to usurp, but rather to refine and stimulate. Sicilian was Italo-Provençal style. The Sicilian kings, though themselves of foreign extraction, fostered the spirit of nationalism. Under Frederick II. (1210-50) the national and patriotic impulse was a very significant factor in the cultivation of the new vernacular literature. But, as in

France, so in Italy, while to the south belongs the first fair flowering of the vernacular literature, to the north belongs its permanent fruitage. Of this movement Symonds says: "What the Suabian princes gave to Italy was the beginning of a common language. It remained for Tuscany to stamp that language with her image and superscription, to fix it in its integrity for all future ages, and to render it the vehicle of stateliest science and consummate art."[2] One long stride toward this end was taken in the pre-Renaissance period. We are too prone to think of everything modern as having its seeds in the "Revival of Learning." Before taking up the first great triumph of the Italian mother-tongue under the Tuscan impress, it may be well, for the sake of the light which it throws on our problem, to take a general view of the status of the vernacular in Italian life during the thirteenth century.

The movement toward the literary use of the mother-tongue was inherent in the conditions of life. The ultimate triumph of any one particular dialect as *par excellence* the literary language is a fact not half so significant as that the various dialects had won their place as over against the Latin in all the fundamental interests of life by the middle of the thirteenth century. This they had done by a common principle of the evolution and rise of the vernacular as an instrument of expression and communication. During this century songs and stories popular in other countries, as well as the learning of scholars locked up in the Latin tongue, began to flow freely through the vernacular to meet the growing popular demand. Tales of travel, Frankish romances, religious history, treatises on ethics, great hymns of the church — in fact, specimens from famous works of all sorts — were rendered into the language of the people. Abstracts were made from the Latin books on grammar, rhetoric, astronomy, geography, etc. The bulk of this vernacular literature was confessedly second-hand, yet the wide range of it shows a strong sentiment in favor of the literary and scholastic use of the popular tongue. Literature of all kinds was beginning to "yield to the first strong impact of the native idiom." Some original compositions began to appear in the vernacular, especially memoirs and chronicles. Also it was coming into wide use in correspondence, both private and public.

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[2] *Op. cit.*, Vol. I, pp. 27, 28.

When Dante began to write in Tuscan, the Italian dialects had already won the day so far as the lower forms of literary art and practice were concerned. Guido Guinicelli, in the latter half of the thirteenth century, was the "founder and prophet of the new and specifically national literature of the Italians."[4] He was followed in the work by a trio of men of rare talent and genius. The first three-quarters of the fourteenth century saw such a wealth of fruitage in the literature of the mother-tongue as was attained in no other country of Europe during the pre-Renaissance period. Dante contributed one of the greatest poems of all time. It won respect for the vernacular and helped to give it a recognized place among scholars as a proper literary medium. Under the hand of Petrarch the vernacular lost all trace of dialect. Though his Italian was Tuscan in source, it was special to no district. "His verse fixes the standard of poetic diction for all time in Italy."[5] Boccaccio exalted not only the language of the common people, but also the literary themes which lay closest to their life and experience. He used not only the vernacular, but also the spirit of the vernacular.

This long discussion of the progress of the Italian vernacular would be disproportionate in this paper, were it not for the fact that the whole movement is such a clear illustration of so many fundamental principles. It is evident that the presence alongside of the vernacular of a superior language of scholarship and literature, even though it be recognized that this language is not fully adapted to the spirit and life of the times, exerts a retarding influence upon the development of the vernacular. The development of Italian literature in face of opposing and retarding influences is indicative of the superior power and propulsiveness of the language of the people as over against any language of scholarship, however ideal that language may be in point of structure or in possibilities of literary style, provided the language of scholarship be regarded as fixed and be kept in isolation from the modifying and "corrupting" influences of the great stream of life.

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[4] SYMONDS, *op. cit.*, Vol. I, p. 48. [5] *Ibid.*, p. 89.

The development of the Italian vernacular as an instrument of literary and general expression also illustrates the stimulating effect of the interaction of one language and literature upon another, and this not alone in point of subject-matter, but also in refinement of vocabulary and style. Still further, the rapidity with which literature in the vernacular reached a high degree of perfection raises the question whether there is not yet some further principle operative in Italy with greater force than in the other countries of Europe. The nearness of the Latin language and the Latin models of literary art is an element not common to Italy and other countries to the same degree. While this operated, at the first, as a retarding influence, the vernacular once under way did not have to wait to go through those slow disciplinary processes out of which comes, after long lapse of time, the perfection of language and literary art. The genius and discipline of long centuries of Latin were ever present as a part of the literary inheritance of the Italians. That subtle quality called taste did not have to develop wholly anew. The significance to the vernacular of models afforded by a maturer language is a point not to be lightly overlooked. Finally, we can see in this early history of the Italian dialects that the development and perfection of a language is an evolutionary process in much the same sense of the word as when we speak of the evolution of a race. The process is not one of unfolding like a bud from a central core. Innumerable variations of dialect and usage come into competition with one another. There is a struggle for existence, and according to their adaptibility, their power of functioning in the life of the people, they survive and become an element in the living language of a group. All of these principles receive further illustration in the history of the other vernaculars of Europe. Further principles will come to light as we proceed, and specific points under those already developed will come out more explicitly.

The progress of the vernacular in the remaining countries of Europe, so far as concerns this period preceding the Renaissance, may be sketched more briefly; for in none of them did it reach so high a degree of perfection as in England and in Italy. The literature of the mother-tongue in France was earlier, more varied, more profuse, and in source more cosmopolitan than in any other country; but the language was slow in developing along the lines of structure to the point where the highest results could be achieved. " By the beginning of the ninth century it was compulsory for bishops to preach in Romance, and to translate such Latin homilies as they read."[6] Epic, or narrative, poetry had something of a finished form in the *chansons de geste* as early as the eleventh century. In the twelfth and thirteenth centuries almost every kind of literature was attempted. The vernacular could show writings in epic poetry, in the various forms of the drama, and in lyric poetry. The language seemed to have considerable adaptability to writing in verse; but good prose was very slow to develop. Yet this was attempted. Beginnings in the writing of history were made by Villehardouin (twelfth century), Jean de Joinville (thirteenth century), and Froissart (fourteenth century). Their writings were far from being scientific history; but from the literary point of view they were vivid and picturesque in the presentment of fact. Previous to the twelfth century even chronicles had been written in verse. Despite its great defects, the vernacular was coming into use in the more practical and serious phases of life. Elaborate codes of laws were drawn up in the language of the people. It was the frequent medium of homilies, both spoken and written; and much of the learning of the age was either translated or popularized.

In Spain and in Germany the vernacular was likewise in process of development. Spain had her charming story of *Le Cid;* Germany had her minnesingers. Except in the case of a few popular songs and stories, the German language remained unfit for literary use until after the Renaissance; though one poet, Walther von der Vogelweide, stands out as a master of exquisite verse of a certain kind. Further discussion of the German vernacular would better be postponed for treatment in another connection.

There remains for discussion one of the strongest impulses to the early literary use of the vernacular common to all the countries of Europe. This was the spirit of religion and devotion.

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[6] SAINTSBURY, *Short History of French Literature*, p. 7.

"Translations of the Psalms and Sunday Gospels had long been in use." It is said that Alfred the Great fostered such translations in England. "From the time of the Council of Constance, or even earlier, provincial synods laid the duty on priests of explaining these portions during Mass; and Postils and Plenaria which comment upon them in the vernacular meet us everywhere. Metrical versions of the Psalms, such as that of de Moulins in France, or of Maerlant in the Netherlands (1225-1300), were well known among all classes."[7] The entire Bible was put into French paraphrase in the thirteenth century by Guiars de Moulins, and before the time of Luther it had been put into print, eventually going through sixteen editions. In Germany there were numerous Bible translations before the Reformation, and with the advent of printing they attained wide circulation. "Prior to Luther's first complete edition in 1534, no fewer than thirty Catholic impressions of the entire Scriptures or portions of them had appeared in the German vernacular."[8] At least thirteen complete German versions of the Bible anterior to Luther's have been located, and repeated editions were called for. The same sort of activity was going on to a greater or less degree in England, Italy, Poland, the Netherlands, Holland, and Spain. No organized opposition to this work appeared on the part of the Catholic church until it saw the use to which the reformers were putting it. At all times, however, the church, as the embodiment of scholarship and doctrinal authority, exercised the right of censorship over religious works of all kinds, nor can it be said that the Catholic authorities, like the reformers, encouraged and pushed the work of Bible translation.

By the end of the fourteenth century the situation as regards the vernacular is about as follows: In all the leading European countries it has reached some degree of literary use and excellence. In Italy and in England its fruitage has been of a high order. In France and Germany the popular literature flourished, especially in the realm of poetry and song; but neither of these languages had been fully molded to use in more serious literary pursuits.

[7] *Cambridge Modern History,* Vol. I, The Renaissance, p. 640.

[8] *Ibid.,* p. 685.

Narrative and historical writing had made a beginning in most of the countries of Europe. Everywhere those interests which lie closest to the life of the people — story, romance, song, devotion, and religious instruction — claim the vernacular as their medium and instrument. There is a marked tendency in the direction of closing the gap between the learned classes and the masses by bringing over learning into the language of the people, both by way of translations and by way of original compositions in the lowly vernacular. Yet the movement in that direction did not go far enough to undermine Latin as the chief instrument and end of education in the schools. The vernacular did not yet become a factor in the process of formal education. Its position was incidental, not functional. How quickly the vernacular might have attained such dignity in literature and such usefulness in the affairs of life as to have forced its way into the curriculum is an interesting matter of speculation. But the Revival of Learning brought such an added impulse to the study of the classics as to threaten the very existence of the vernacular as an instrument of literature, to say nothing of it as an end to education.

The question may be asked: Why did not this new and living vernacular literature, developing and pushing ahead so rapidly, supplant the Latin literature and force its way into the schools? From some points of view it would have been a very fortunate thing if it had done so. But a closer view of the question seems to show conclusively that it would not have been so great a good fortune as it appears on its face. In no country was the vernacular as yet a fit instrument for the expression of the highest literary art, nor was it even an adequate vehicle for the expression of thought. Now, both of these conditions ought to be met in a literature that is to be made an instrument and an end in school education. Toward the realization of this end, toward putting the language and literature into a shape to satisfy these conditions, the Revival of Learning made a most important contribution. But the fitness of the language and literature is not enough in itself to force the vernacular into the curriculum in competition with the ancient languages. It is only one of the conditions which rendered such a procedure possible. The stress of conditions of life and new points of view with reference to the nature and function of education itself will have most to do with making the vernacular the vehicle of formal instruction and itself an end of education.

The first effect of the Revival of Learning upon the cause of the vernacular was disastrous in the extreme. The rediscovery of antiquity, especially the richness and fulness of its life and literature, was like a new revelation to human consciousness. The wealth of Greek and Roman literature and learning had been obscured, and almost lost, during the troublous times of the barbarian invasions, and the occupation of the field of consciousness with the pressing and vital problems of readjustment to the new and changing conditions of life. The conditions for scholarship had been found in the seclusion of the monasteries alone. Hence those parts of ancient knowledge which played into the hands of theology were practically the only ones which filtered down into the fund of general knowledge, and this, too, through an ecclesiastical and somewhat barbarous Latin. The beauty and the perfection of the classical Latin tongue and its literature were in striking contrast, not alone with the vernacular, but also with the Latin with which they had been familiar. They found so much to admire in the achievements of the Greeks and the Romans that the attention of scholars became focused upon the past and their ideals located in antiquity. For the germinating tendency of the preceding period to look forward there was substituted for a time the backward view. Scholarship centered upon the task of exploring antiquity for its treasures of classic literature and knowledge. The work of editing, compiling, and translating superseded that of original composition. And when original composition was again undertaken, the ideal both of style and of medium was the ancient in preference to the modern. This renascent classicism retarded the growth of the vernacular in Italy, outside of Florence, threatened its very existence. The popular literature became despised by scholars. This attitude of mind generalized included in like contempt the very best that the mother-tongue had produced. Niccolo Niccoli, though himself a Florentine, called Dante "a poet for bakers and cobblers." Everywhere the gap between the learned and the unlearned, between scholars and the laity, which had been closing up during the preceding period, was reopened and widened. The problem of the universalization of education has its solution complicated again and postponed by the setting up in opposition to each other of the learned and the vulgar tongues. The rising class of scholars and professors moves farther and farther away from the interests of the common people. The Humanist thought it beneath his dignity to use the mother-tongue. His ideal was to write in Latin for a reading public composed of the learned. He could not waste his time on common folk. To write or speak to a public composed of the vulgar crowd was essentially lowering to the scholar. His place was within the refined circle of the court and the palace. Pecuniary interest, however, occasionally led a Humanist of high rank to lecture or write for a part of the time in the vernacular. Thus Bruni lectured and wrote on Dante and Petrarch.[9] Yet when such a thing as this occurred, it was usually with an apology for the use of the vulgar tongue, showing that the real attitude toward it was one of condescension or of contempt. This situation as regards the vernacular was earlier, more extreme, and of shorter duration in Italy than in the countries farther north. Before taking up the renascence of the vernacular and the benefits which flowed to the mother-tongue from the Revival of Learning and its Humanistic trend, it may be well to take a look at the status of the vernacular in the schools during the period roughly covered by the fifteenth and sixteenth centuries.

With the vernacular held in contempt by scholars and its literature despised, we should not expect to find that the mother-tongue had any place in the school. The Humanistic ideal dominated education from the primary school to the university. The study of the classics was thought to give the kind of discipline and training that best fitted for any kind of life for which any special training was necessary. If the vernacular ever had found access to the schools up to this time, it was now most certainly thrust out. The child was introduced at once to the study of Latin without any previous study of the mother-tongue. There seemed to be no more reason why the school should usurp the function of the home in the matter of teaching the native language than it should in giving instruction in the art of milking cows. In fact, the whole idea of the school was to exclude just as completely as possible the use of the vernacular from education. At some time between the sixth and the ninth years of his life the child began his career as a disciple of antiquity. The first thing that he studied was Latin grammar. This he did not learn through the language which he already knew, but through the verbal study of a grammar written in Latin. He had to commit to memory hundreds of rules and exceptions, all in the Latin tongue. The aim of this study was precision in speech and successful imitation of models, leading up to the mastery of Latin eloquence. The study of Latin verse preceded that of prose, and without any previous experience and training in the art of composition in the pupil's native tongue. As Latin eloquence and polish of diction were the ideal of education, the schools short-circuited the process by dropping out from consideration practice in the vernacular, or even in the more simple and direct Latin of Cæsar, Livy, and Lucretius, and centered their attention upon Horace and Virgil, and especially Cicero.

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[9] SYMONDS, *op. cit.*, Vol. I, pp. 235, 236.

In order that the Latin education might be interfered with as little as possible by the experience which the child already had in the exercise of his mother-tongue, all sorts of restrictions were laid upon the use of the vernacular. It was a common thing for fathers and masters strictly to forbid boys to read works in the vernacular. Benedetto Varchi was soundly rated and nearly expelled from school for reading Petrarch on the sly. The Jesuits forbade the use of the vernacular except on holidays, and the Protestant Sturm shortened the periods of recreation in order not to run the risk of his pupils speaking German on the playground. The statutes of most of the universities made the speaking of Latin compulsory. That at Ingolstadt reads: "A master in a bursary shall induce to the continual use of Latin by verbal exhortations and by his own example; and shall also appoint those who shall mark such as speak the vulgar tongue and shall receive from them an irremissible penalty."[10] Again: "That students in their academic exercises may learn by habit of speaking Latin to speak and express themselves better, the faculty ordains that no person placed by faculty upon a common or other bursary shall dare to speak German. Anyone overheard by one of the overseers to speak German shall pay one kreutzer."[11]

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[10] Quoted in MONROE'S *Comenius*, p. 3.

In spite of all the stress laid upon Latin education in the sixteenth century, the attempt to isolate boys from their native social and linguistic environment, and make out of Italian and French and German boys Romans after the pattern of Cicero and Horace, was not a very startling success. The path of the educator, as well as that of the boy, was overlaid with thorns and difficulties. Statutes, fines, spies, and floggings were not adequate to the suppression of the mother-tongue. It had within it the dynamic power of life. The outcome of the struggle of that which is living and functioning with that which is dead and fixed cannot be a matter of doubt. A historian of the period writes: "Boys and teachers were alike unhappy; great severity of discipline was practiced, and after all was done, and all the years of youth had been spent in the study mainly of Latin, the results were contemptible."[12] Cordelier, writing in 1530, says: "Our boys chatter French with their companions; or if they try to talk Latin, cannot keep it up."[13] The production of a man who could really write Latin with a master-hand was rare indeed. Exotic culture is pretty sure to be more or less artificial. Even Macauley,[14] who is fulsome in his praise of Milton, meets the criticisms made on the great poet's style in his Latin poems by the virtual admission of the fact that the same standard cannot apply to him as to those who in writing Latin made use of their native tongue. Naturally this Humanistic training was no more effectual in producing men who could wield the vernacular well, so long as the ideal was imitation of the classics. In applying the Latin as a standard for the vernacular, they had a false ideal of style; for the genius of the various languages is essentially different. Study of Latin which was primarily philological and for the sake of grammatical structure, and only secondarily for the sake of the literary content and a correct understanding of the author, was not likely to have a very valuable reflex influence upon the use of the vernacular. The externals rather than the spirit of the classics were absorbed. Many of the best Humanistic scholars could not write clearly and sensibly in the native idiom. Their composition was vitiated by pedantic Latinisms of rhetoric and of vocabulary. Men as great as Varchi and Alberti, when they attempted to write in Italian, could not overcome the Latinistic tendencies of their training. Cristoforo Landino's belief that "he who would fain be a good Tuscan writer must first be a Latin scholar"[15] was true only with decided qualifications. Even familiar correspondence was made pedantic by being loaded down with Latin phrases. The first effect of Humanism has been to postpone the day when the vernacular shall triumph in the field of education. In spite of all this, Humanism does have a positive contribution to make to the cause of the vernacular, but not until it has been transformed by a new ideal. We shall next take up the renascence of the vernacular under the impulse of the second Humanistic ideal.

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[11] *Ibid.* [12] *Ibid.*, p. 123. [13] *Ibid.*, p. 4. [14] Essay on Milton.

IRVING ELGAR MILLER.

THE UNIVERSITY OF CHICAGO
Graduate Schools.

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[15] SYMONDS, *op. cit.*, Vol. I. p. 237.

FIRST HELLENIC EDUCATIONAL CONGRESS AND SCHOOL EXHIBITION, ATHENS, 1904.

According to a decision made in common by three societies, recognized by the state, viz., the Society for the Promotion of Greek Studies, the Parnassus Society, and the Society for the Propagation of Useful Books, an educational congress will be held in the month of April, 1904, at Athens. In connection with it there will be opened an exposition of documents and materials pertaining to education.

1. The exposition will open on April 12, 1904, and will last one month. The organizing committee, if it judge fit, may prolong it; such prolongation in no case to exceed one month.

2. The exposition is to comprise two divisions: (1) schools in Greece and Greek countries; (2) materials used in education. Division (2) is to be further subdivided into (*a*) a Greek and (*b*) an international exhibit.

Foreign exhibitors will deliver their goods at Athens not later than February 14, 1904. They must withdraw them within a month after the close of the exhibition, all transportation and packing, both ways, to be at the cost and risk of the exhibitors. The organizing committee will take steps to obtain immunity from customs for objects exhibited.

3. All objects not withdrawn by the exhibitors at the expiration of the month following the close of the exposition, as well as all objects donated by the exhibitors, will go to make a permanent educational museum at Athens.

4. The organizing committee undertakes the safeguarding of exhibits from the day of their arrival at the exposition quarters to the end of the month following the close of the exposition.

5. At the opening of each case from abroad an inventory will be drawn up specifying the goods therein contained and their condition; such opening to be made before a representative of the committee and a representative of the exhibitor, or, failing

the latter, before two representatives of the committee, the invoice to bear their joint signatures. The same will take place when the objects are returned to the exhibitors at the close of the exposition.

6. Diplomas and honorable mentions will be accorded. The conditions of the competition and all other details regarding the exposition will be published in proper season by the committee and forwarded to the consulates of Greece abroad.

7. The committee will be at the disposal of exhibitors desirous of ampler information.

Address: Comité d'Organisation du Congrès hellénique d'éducation (bureaux du Syllogue pour la propagation de livres utiles), 42 Rue de l'Académie, Athènes.

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THE ROOPER MEMORIAL.

MANY teachers are familiar with Mr. T. G. Rooper's educational writings, and especially with that very interesting exposition of the doctrine of apperception entitled *A Pot of Green Feathers.* On account of the interest excited by Mr. Rooper's writings, it is thought possible that many educators outside of his own country may be inclined to contribute to a proposed memorial in his honor. Subscriptions may be sent to the Honorable Secretaries of the Rooper Memorial Fund, Hartley University College, Southampton, England.

BOOK REVIEWS.

King Arthur and His Knights. By MAUDE L. RADFORD, Instructor in English in the University of Chicago. Chicago: Rand, McNally & Co., 1903. Pp. 272.

THIS volume is a collection of narratives taken from Chrétien de Troyes's *Yvain,* from Malory's *Morte d'Arthur,* and from Tennyson's *Idyls of the King,* and so adapted and arranged as to form a reading-book for children in the fifth grade of the public schools, though it is cannily suggested in the preface that it may prove serviceable for the third and fourth, and for the sixth and seventh as well. In its character as a reading-book it should prove an acceptable addition to the teacher's resources. It is clear and simple, offering a very pretty and diversified vocabulary; it is neatly arranged with a view to the single and unified lesson; it has a small pronouncing index, the use of which will, no doubt, add greatly to the dignity and confidence of the fifth grade.

There is unquestionably much in the King Arthur romances that should contribute to the pleasure and wholesome culture of the elementary child. Epic activity, bold and generous deeds tempered by gentleness and reverence — this is the atmosphere of the best side of the Arthur stories. This is precisely the atmosphere into which one longs to lead the older children of the elementary school. In making a book for the child out of the Arthur legends, one must do with his material as Malory did with his — regard it as the mere stuff of human nature and life, a storehouse of treasures out of which one may choose according to his pleasure or his need. The child's needs should dictate the choice and arrangement in this case.

But he who offers to choose among the Arthur stories such as may be given to the child should be wise and experienced, knowing thoroughly well his stories and his child: for the pitfalls are many — quite as many in Chrétien de Troyes and Malory as in Tennyson.

First of these is the pitfall of that fantastic feudal gallantry which Chrétien and Malory substituted for the forthright chivalric business and earnestness of the older legendary romances. In the elementary grades the children are still mere undifferentiated human beings, and should be kept so. Suggestions of "ladies" to be "won" and to be "served" usher them before time into an unknown world, and are needless, since there is in the same material a legitimate sufficiency of lions to be hunted and giants to be overcome.

It is true that the psychology and *modus operandi* of love and love-making, innocent or guilty, are so alien to children of this age as to pass harmlessly by them, when these notions constitute a necessary link in a narrative otherwise suitable for them. But it is surely a mistake to linger with the little people over any of these experiences. He who would retell the Arthur stories must be wary here, so difficult is it to put together the stories into any kind of a whole without using this scarlet thread of guilty passion, or substituting for it something "nice" but wishy-washy. We have only to compare the grim justice of Malory's Modred with Tennyson's inadequate and sentimental handling of his character and function. Miss Radford has skirted these difficulties rather neatly. Her presentation of the ladies and the love affairs is skilfully colorless, the emphasis being laid for the most part upon the deeds which they inspire.

Another of the pitfalls is to be found in the religious mysticism, not to say fanaticism, which Malory wove into the Arthur cycle when he incorporated with it the legends of the Holy Grail, and which Tennyson chose to make the pivotal motive in his downfall of the Round Table. Tennyson, writing for mature readers and presenting a whole cycle, could, stroke by stroke, build up the impression of this burning zeal, this hypnotic trance of enthusiasm that led men away after wandering fires, forgetting labor and duty. But simplified to suit a child's reading-book, and fitted to the comprehension of a ten-year-old, it is likely to appear as a vague and mistaken piety, the effect of which is quite out of proportion to its importance. Since, however, Miss Radford, being a good Tennysonian, chose the Holy Grail defection as the beginning of the end, she has made a more vigorous and convincing chapter of it than could have been expected.

There is, it would seem, a temptation scarcely to be resisted, to introduce into any arrangement of the Arthur stories the symbolism that lay obviously upon the surface even in the *Morte d'Arthur,* which Tennyson heightened into an almost oppressive system of sophisticated and parochial doctrine. Symbolistic art but baffles or unduly forces the child. To him the sacred outside appearance of things is enough. On this point Miss Radford has been, on the whole, wise. One could wish that she had followed Malory in Gareth's fight with the fourth knight, instead of adopting Tennyson's evangelistic bit of symbolism; and her interpretation of the Tennysonian architecture of Merlin's hall might be profitably dropped out. By the way, it is always a pity to make little of Merlin. He is the most permanently interesting figure in the cycle. He is Odysseus among the Greeks, the sacred bard among the warriors, the subtle one, always so appealing and so satisfying to a child's imagination. Indeed, epic activity and intellectual dominance, whether the latter take the shape of wisdom or magic, are perhaps the most satisfying elements in the literary subject-matter of the fifth grade. The Arthur stories afford these in the richest abundance. It is therefore a mistake to turn aside in a child's book to idyllic and sentimental details, or to fall into a modern reflective and idyllic manner. Something soft and meditative in the whole cycle would justify Tennyson in his large presentation. But when we choose for the child, it might be best to drop out that side. Miss Radford has the modern consciousness enriched by the Tennyson tradition, and we find in the little book many of these idyllic details: "Arthur wore a gold crown, but it was no brighter than his hair, and the blue truquoises with which it was set were no bluer than his eyes." In the midst of the melée in the battle of the eleven kings "the noise drowned the sweet songs of the birds, but still they sang and flew about gayly, all unaware of the grim death struggle going on beneath them." It may be that the design is here to introduce "a background of nature," by way of contrast; but one fears that this is an artistic effect thrown away on the fifth grade, and perhaps entirely out of place in such a narrative.

But because it does meet these difficulties, on the whole, with taste and skill, one must regard it as a hopeful book. It is not the final one to be made out of the material and for the purpose, because it does not yet recognize clearly the needs and tastes of the child. But it should be, and it will be, a source of artistic pleasure and imaginative enlargement to the children to whom it is given.

PORTER LANDER MACCLINTOCK.

THE UNIVERSITY OF CHICAGO
School of Education.

Language Lessons from Literature. By ALICE WOODWORTH COOLEY assisted by W. F. WEBSTER. New York: Houghton, Mifflin & Co., 1903. Book I, pp. xv, 200; Book II, pp. xxx, 389. Appendix, pp. 26.

THE evolution of the language book would make a most interesting subject for study. Ever since the revolt against formal English grammar in the elementary school, so-called language books have appeared and disappeared at frequent intervals. They have disappeared because no one seemed to have the courage to write a book on language that should frankly be what its name implied. Most of the books that have been written have contained too much grammar thinly disguised as language lessons, the facts of language in them being smothered under pages of examples of detached sentences selected chiefly for their ethical value. Recently, however, a few good language books have been published — books which, like these of Mrs. Cooley's are destined to crowd the introduction of a text-book in formal English grammar up into the last year of the elementary school.

Mrs. Cooley's reasons for writing her books are clearly and convincingly given in the preface to Book I and she has actually written the books that her preface leads one to expect. There is no indefiniteness of aim either in stating her convictions, or in developing her methods.

The first lesson is admirably selected to hold the interest of the child. It is a delightful lesson on one of Murillo's inimitable pictures of children and is handled most skilfully. This is followed by poems, and stories in prose, that the child may realize that thought may be expressed either by brush or pen — by picture, poetry, or prose. By means of the story the idea of the sentence is developed; then the paragraph. Before Book I is finished, if the teacher has caught the spirit of Mrs. Cooley's book, the child has become acquainted with much fine literature, and has also been made familiar with correct forms, and good usage in simple English construction.

The plan of the first book is continued in the second. The selections are admirable and show not only a fine appreciation of literary values, but also a sympathetic knowledge of what will go straight to the heart of a child. Throughout both books great attention is given to content as well as form, and nowhere is time or energy wasted on that which is immaterial or uninteresting. Indeed, the books stand for discriminating and exquisitely sympathetic work. The atmosphere of the books is wholesome and invigorating, and every lesson is full of suggestion. Mrs. Cooley makes much of the voice of the teacher by frequently asking her to lend the beauty of her voice "to the rhym of the poet." When in the development of a lesson a fact about language is needed, it is given simply and concisely. The child is even asked to stop and learn a rule, if that rule will help him in applying the principle involved. The entire presentation of subject-matter is simple and natural, and appeals to one's sense of the eternal fitness of things. The supplementary lessons in Book II give valuable practice in the correct use of words commonly misused and there are many exercises to aid in acquiring a good vocabulary.

No class of pupils can be guided through these two books without acquiring a good degree of fluency in the use of English, and a habit of discriminating observation. These books are an excellent preparation for the training in thinking afforded by the study of formal English grammar.

LUCIA JOHNSTON.

DOUGLAS SCHOOL,
Chicago.

History for Graded and District Schools. By ELLWOOD WADSWORTH KEMP. Boston: Ginn & Co. Pp. 537. $1.

THE subject of general history is presented to children in a comprehensive manner in this book of 537 pages. Beginning with the primitive Aryan and running through the general racial movement, the story ends with the development of the United States on the American continent.

The work is divided into eight grade periods, the primary outlines being suggestions for the teacher. The style is pleasant, and the young reader is led through Egypt, Israel, Greece, Rome, and modern Europe by easy stages. The full swing of action running through the stories of the ancient nations will catch and hold the attention of any child of elementary-school age.

Commencing with the fifth grade, the pupil is given a course in the causes that have produced modern civilization. Among the causes enumerated, one, the Reformation, leads the author into an exhaustive discussion of the religious questions of the sixteenth and seventeenth centuries, as well as into an analysis of the monastic life of all the Christian ages. It is an open question as to whether any child of the fifth grade is prepared to understand or to feel an interest in the merits of the Lutheran contest with papal authority in the sixteenth century, when told in detail. While the wisdom of a discussion of this and kindred subjects in a class of high-school or college students, alive to the side influences of home training, may be granted, the passivity and helplessness of the child of eleven or twelve years should shield him from the religious bias of the teacher.

The subject, Teutonic self-government, is an abstraction to a pupil of the sixth grade. Charters, bills, and petitions do not appeal to his desire for action. The movement of the early grades is lacking in the latter part, while generalizations and deductions are supplied.

The history work of the elementary school should give the child the story of man, and lead him to make his own deductions in the fulness of more mature development.

MARY A. CROWE.

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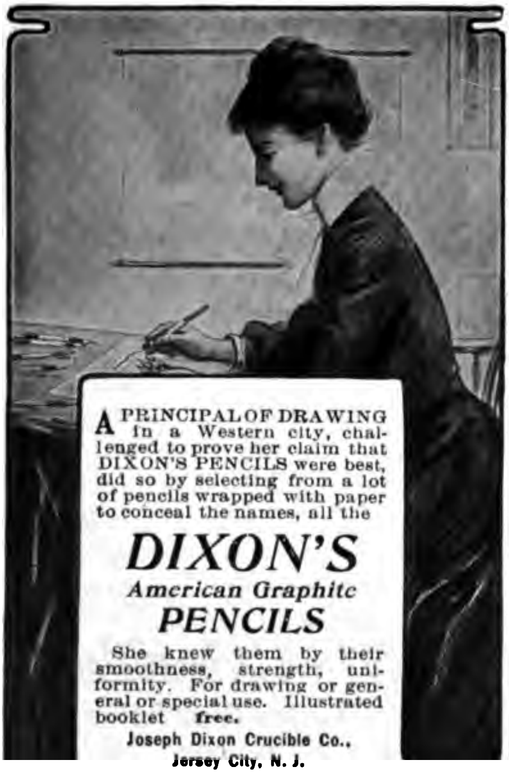

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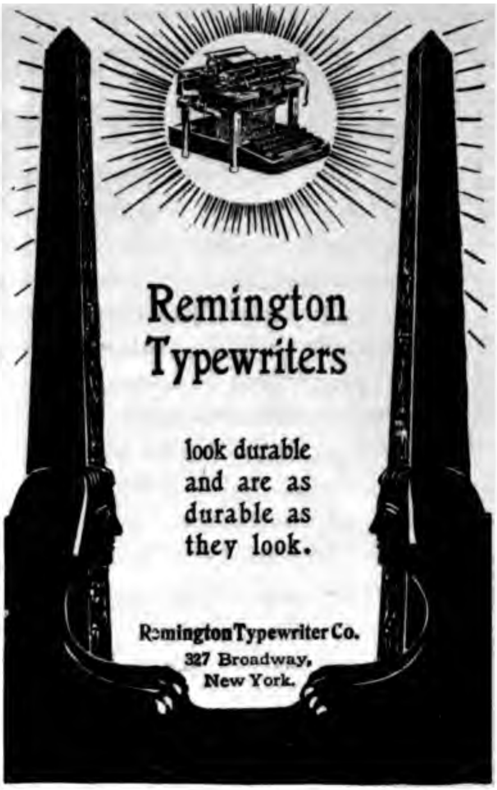

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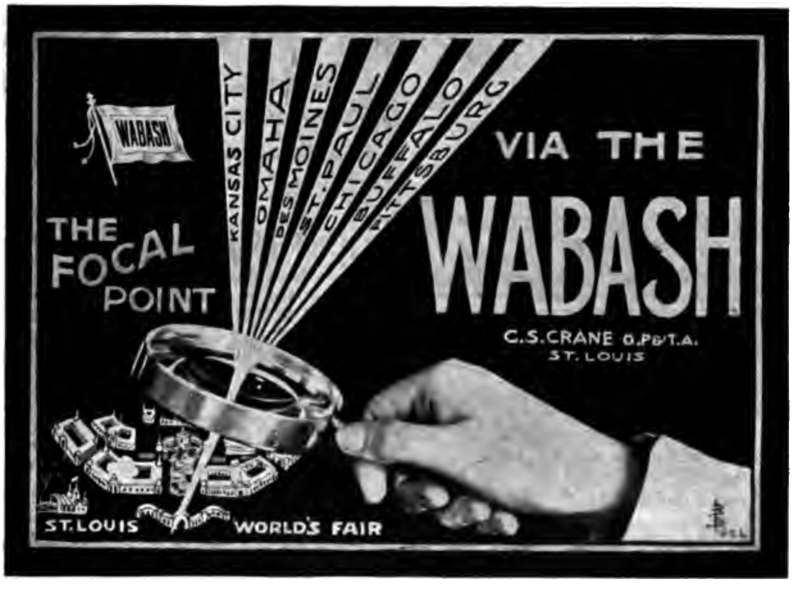

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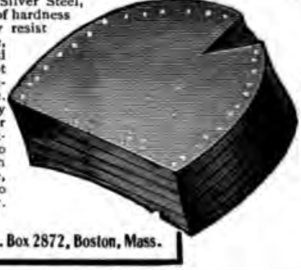

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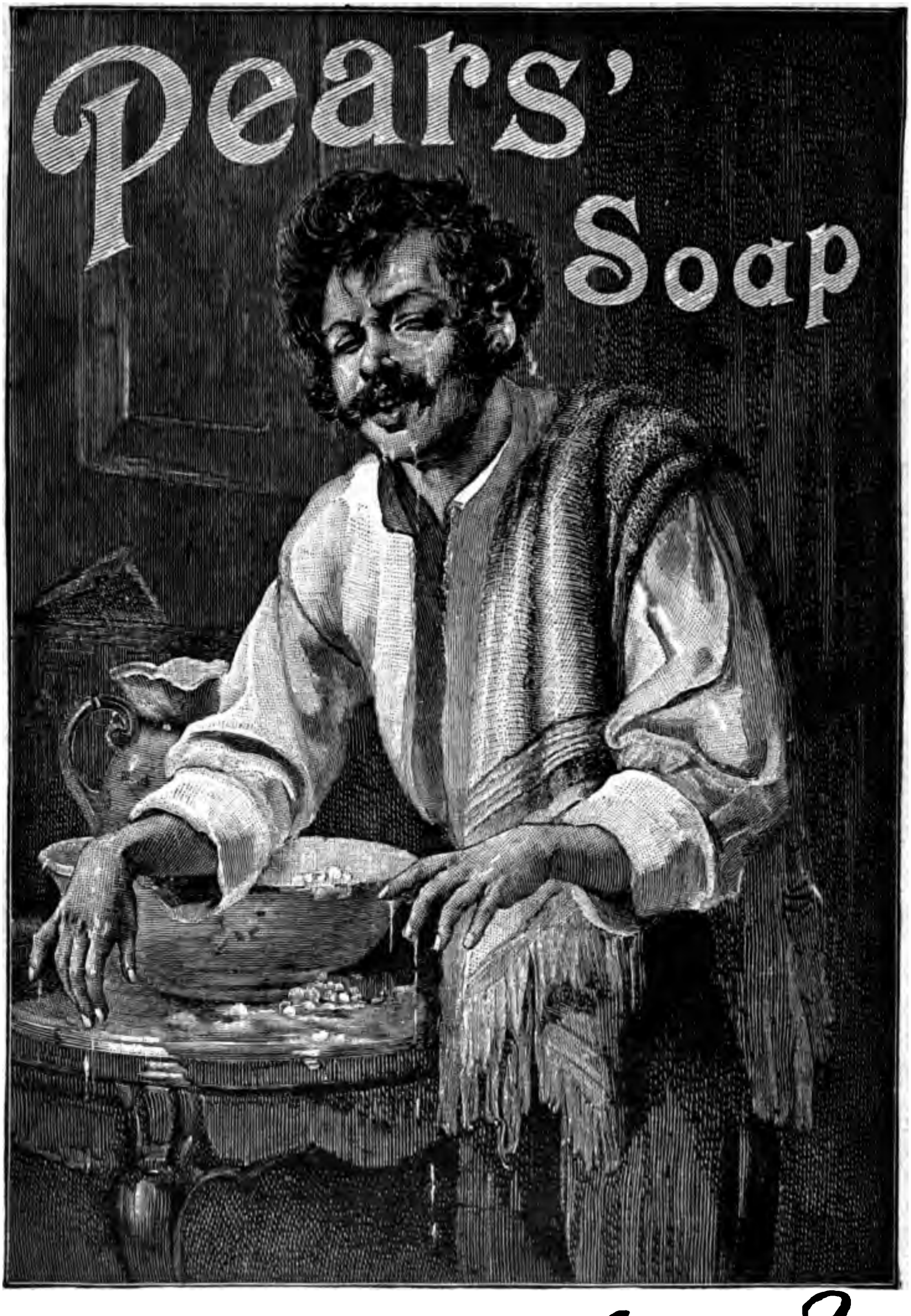

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CONTENTS FOR MARCH, 1904

SIGNIFICANCE OF THE SCHOOL OF EDUCATION - - - - - John Dewey 441
THE ORGANIZATION OF HISTORY IN THE CURRICULUM - - Emily J. Rice 454
THE COLLABORATION OF HISTORY AND GEOGRAPHY - Edwin Erle Sparks 461
POLITICAL HISTORY IN THE ELEMENTARY SCHOOL - - - W. H. Mace 466
CIVICS IN THE ELEMENTARY SCHOOL - - - - Henry W. Thurston 471
THE RELATION OF HISTORY AND INDUSTRY - - - Katharine E. Dopp 477
A WORD ABOUT LOCAL HISTORY - - - - - - - - - - Jennie Hall 483
HISTORY AS AN INSTRUMENT OF EXPERIENCE Werrett Wallace Charters 489
ÆSTHETIC DEVELOPMENT THE PROBLEM OF THE FUTURE Lilian S. Cushman 495
HANDICRAFT IN THE PUBLIC SCHOOLS - - - - - M. Emma Roberts 501
ART AND MANUAL TRAINING IN THE HIGH SCHOOL
Frederick Newton Williams 507
ART AT SCHOOL FESTIVALS - - - - - - - - - - - James Hall 510
DRAWING AND PAINTING IN THE ELEMETARY GRADES Annette Covington 514
THE SOCIAL NEED FOR ARTS AND CRAFTS IN EDUCATION
Mary Linton Bookwalter 526
THE EDUCATIONAL SIDE OF THE PARENTS' ASSOCIATION OF THE LABORATORY SCHOOL, from a parent's point of view - - Nellie O'Connor 532
BOOK REVIEWS:
Dopp: The Tree Dwellers, Albert R. Sabin, 536; *Belfield-Brooks:* The Rational Elementary Arithmetic, George H. Howe; *Myers-Brooks:* The Rational Grammar School Arithmetic, George H. Howe; 537.
BOOKS RECEIVED - - - - - - - - - - - - - - - - - 538

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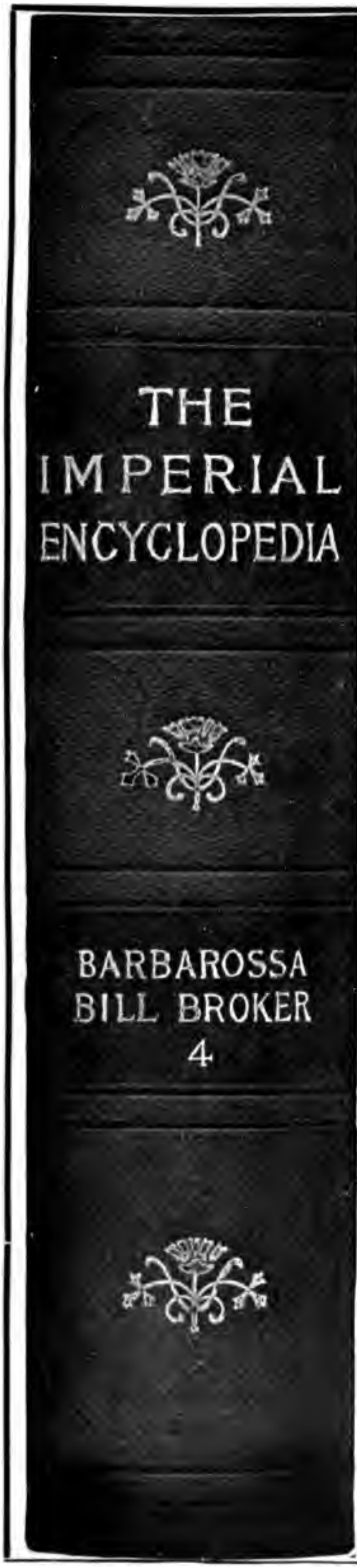

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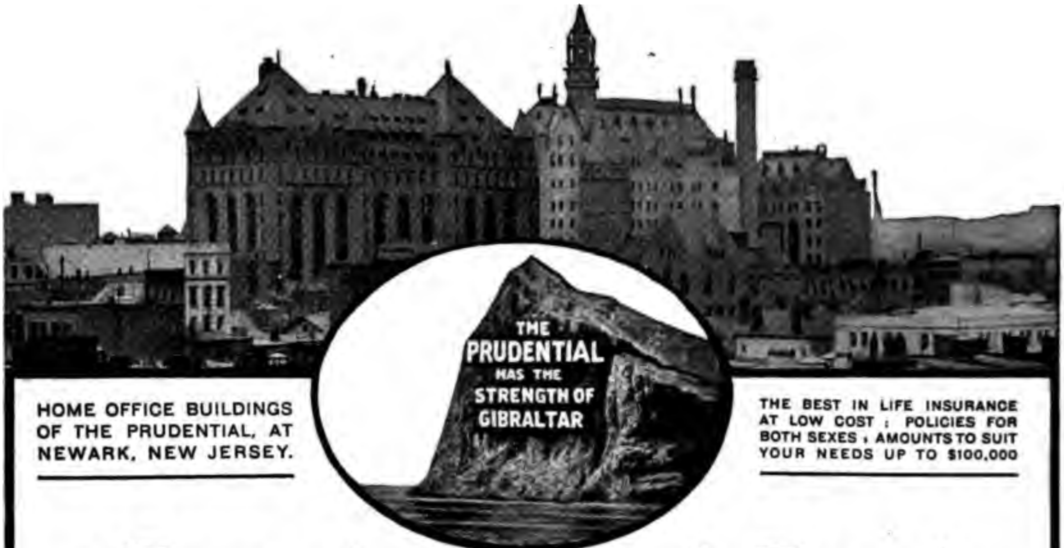

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VOLUME IV NUMBER 7

THE ELEMENTARY SCHOOL TEACHER

MARCH, 1904

SIGNIFICANCE OF THE SCHOOL OF EDUCATION.[1]

THE topic at once arouses the query: Has it any — any, that is to say, different from that possessed by any school as a place in which children and youth receive instruction? Well, let us see. I am a great believer in the sanctions and sanctities of history. What light does history throw on the significance of the School of Education?

It may be a cause of surprise to say that the School of Education is just coming of age — that it is now just twenty-one years old. You may, some of you, have thought of it as coming into existence as we took possession of these buildings; while others would think themselves certainly justified by the facts in saying that it is now in its third year of existence. But I date its origin from the year 1883. It was in that year, by a coincidence which I think also is an omen of good, that Colonel Parker came to the Cook County Normal School, and that the Chicago Manual Training School was opened under the direction of Mr. Belfield. It is pleasing to recall that Colonel Jacobson and Mr. Ham, who took so active a part in promoting the Chicago Manual Training School, also encouraged and assisted in every way in their power Colonel Parker in introducing manual-training work into the Cook County Normal School, where it was found from the very opening of Colonel Parker's work.

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[1] A paper read before the School of Education Parents' Association, Chicago, January 28, 1904.

Since the School of Education in its present form is the direct outcome of the foundation and endowment of the Chicago Institute by the magnificent gift of Mrs. Emmons Blaine, and since this gift was the happy fruit of the inspiration proceeding from Colonel Parker's work at the Cook County Normal School (was intended, indeed, to consummate that work, to bring to fuller realization the possibilities it had made evident), no apology is needed for beginning my talk with this factor in the constitution of the significance of the School of Education.

The fact which this portion of our history — for I shall always claim that we are entitled to call it *our* history — puts before us is the meaning of the training of teachers in any educational project. Colonel Parker was sufficiently well known as a warrior and prophet in the cause of educational progress before he came to Chicago; but the storm center of educational reform was transferred from Quincy to Chicago in 1883, because Colonel Parker was enough of a prophet to foresee that the important thing, the controlling thing, in any educational movement is the personality and training of those who are to carry it on. It is to persons that everything in life at last comes back; and it is to teachers that everything in school life comes back. Moreover, Colonel Parker was enough of a warrior to see that the training of teachers is the strategic point in the educational campaign. Only from such a fortress can the battle economically and effectively be carried on. It goes without saying, however, that with the Normal School there was connected, as an organic part of the work of training teachers, an elementary school, and in idea, if not always in fact, a high school. Colonel Parker was the reformer that he was just because he saw that the cause of the child and the cause of the teacher are one. It is through the improvement of the standards, ideals, and working equipment of the teacher that the cause of education is to be advanced. But it is only in the enrichment, direction, and freedom of the life of children that this progress takes effect and has reality. The better training of teachers and the providing of a better school life, in which the children may find themselves, are Siamese twins of educational reform.

If we turn to history, we learn at least this: one fundamental and striking element in the significance of the School of Education is the desire and resolute purpose to promote the cause of education, not only here, but everywhere, through inspiring teachers with more vital and adequate conceptions of the nature of their work, and through furnishing them with the intellectual equipment necessary to make them effective and apt in carrying out such broadened and deepened ideals.

But, as I have already reminded you, this same year, the year 1883, was the year of the birth of another integral portion of our School of Education — the Chicago Manual Training School. This, too, had its origin in discontent with then prevailing methods and aims of education, particularly in high-school work. It was to some extent, I take it, like the movement which Colonel Parker represented, a protest against a one-sided education — an education which took account of the employment of the senses upon the symbols of things, but not sufficiently of the use of touch and sight and muscular sense upon things themselves; a protest against an ideal of education which identified instruction with training of powers of intellectual assimilation and accumulation at the expense of the training of the executive organs; a protest against an education which prepared for the more bookish and conventional professions of life at the expense of commerce, business, and those modes of productive creation which lie near the foundations of our social life. The Chicago Manual Training School, in other words, stood for a hitherto neglected factor and function in the educational field. It also, like the work of Colonel Parker in the Cook County Normal School, was a pioneer work. It was original and creative in its own department. We have a right to recall with pride, that in tracing the origins of two factors of our present school, we are also dealing with the origins of two movements of national significance — movements whose influence never was shut up within their own walls, or even within the city of Chicago, but which became models and inspirations of similar work all over the country.

So far at least we have no mean and insignificant ancestry.

But the School of Education is the School of Education *of the University of Chicago,* and that reminds us that there are other historical forces which have to be taken into account in reckoning up the significance of the School of Education. From this point of view, two other schools—the old University Elementary School, afterward called the Laboratory School, and the South Side Academy—demand recognition. Younger in years, they form the immediate ties which bind the School of Education to the university work as such.

The Laboratory School, as the name implies, was founded expressly for the purpose of scientific investigation and research into problems connected with the psychology and sociology of education. Its aim was to further the application of scientific conceptions and methods to the conduct of school work. The application of science to the physical departments of life is a fact so familiar that it hardly arouses much attention, even for a moment, excepting in its more unusual and extraordinary manifestations. But the conception that the methods of inquiry which prevail in science can be brought to bear in any useful way upon practical school problems is a very recent notion. Its recentness may, indeed, be judged from the fact that the Laboratory School was, like the two other factors which we have considered, a pioneer. With the exception of a kindergarten maintained for a short time under the auspices of a department of education at Leland Stanford University, the school had no predecessor. Taken as forming a factor, then, in the significance of the School of Education, the incorporation of the laboratory school marks the necessity of training teachers, not only by giving them inspiration, practical insight, and skill, but by giving them command of the most fundamental intellectual tools of the work which they are called to do. Over and above this, it stands for necessity of making the body of thought upon which education depends something more than, upon one side, a set of abstract and general theories, reinforced by a large amount of routine and empirical devices, upon the other. It commits the School of Education to the significant task of continuous research into the principles underlying educational practice, and to continual criticism of methods that are in practical use, with a view to influencing intelligent thought and practice all over the country — a function which the Laboratory School had already fulfilled to a surprising extent, considering its short history and modest equipment.

Speaking in terms of relationship to the University, the incorporation of the Laboratory School signifies bringing to bear of the intellectual methods of which the modern university is the appropriate home and embodiment, upon all the questions of education, both elementary and secondary. To infuse lower education with the intellectual ideals which inspire university work, to show how the methods and operations of mind which are so fruitful for discovery and application in the highest flights of the mind can be made effective and operative from the very beginning of the school training of the child, is surely a fact of considerable significance. All of that significance is now embodied in the life of the School of Education.

The South Side Academy was founded in the year 1892 especially as a preparatory school for the University. This institution thus completes the circuit of connections with the University. To have represented here simply the training of teachers, simply the modern, more practical and applied, aspects of education, or even simply inquiry and application of scientific method, would still leave a gap. An educational institution which contains and represents all possibilities of the educational situation must surely include the important work of giving the information, discipline, and culture which are necessary for entering upon university work. At times, many of us become impatient with the seeming slow advance of educational ideals in our colleges, and revert more or less jocosely to the mediæval origin of such institutions; but in our sober and serious hours we all know that the college is a noble exponent and organ of all the things that are necessary to our higher life; and that any abating of its interest in that vague and somewhat intangible thing we call culture, would bring about a permanent loss in what is most worth while in our life. If the university is of such importance, then of equal importance are the institutions which devote themselves to preparation for it. "The

College Preparatory School" is a phrase sometimes used as a term of reproach. Sometimes college preparation does mean a narrowing of the kind of work done, a restriction upon preparation for full participation in all the ranges of social life, and then the term rightly carries some depreciatory coloring with it. But this is unnecessary, and, indeed, a perversion. As long as colleges exist, and adequately perform their social service, so long will college preparatory work also be an honor and not a reproach. If the cultural work of schools became too remote and abstract and dead, because of isolation from the more immediately practical, moving force of society, so also manual and commercial education easily becomes cramped, servile, and hard when apart from the illuminating and expanding elements of a cultural education.

This, then, is the answer of history to our question as to the significance of the School of Education. Put in terms of its origin, the School of Education signifies a bringing together of all factors of the educational problem. Upon the personal side it cherishes and maintains continuity with the past. While the great leader, Colonel Parker, has gone, a large part of the faculty trained by him is today a part of the School of Education. The original director of the Chicago Manual Training School, and a staff some parts of which have been connected with the same work almost from the beginning, participate in our present work. We have also those who have been connected from their inception with the Laboratory School and the South Side Academy. The roster would not be complete if I did not include one who, through connection with the department of education and the laboratory school, also brings the School of Education into the most intimate contact with the Chicago schools, thus enabling the School of Education to embody as a living part of its own work the fruits of a career of labor and honor in our public-school system. There is a piety of history as well as a natural piety, and I am proud to have the honor of reminding all present that the School of Education, instead of abruptly and violently severing it from the past, has at all points, so far as possible, gathered up into itself the wisdom and the experience that accrue with the growing years. I am glad also to be able to say that, while the School of Education is an endowed, and in that sense a private, school, its whole past history commits it to the idea that as it grows out of, so it is to grow into public-school work, to be a help and encouragement in its growth.

But what does all this signify as to the future? The story indicates that the School of Education is not a *parvenu*. It has earned the right to its position through years of toil and struggle and conflict. Yet all this does not answer the question as to what it is to signify for the future of education.

I suppose all concerned with the School are met from time to time with the remark that it must be a work of very great difficulty to weld or fuse into one whole so many different elements. But this remark applies only to the mechanical side of the school situation. It is true, just a question of mechanics. But higher and deeper lie what may be termed the *organics* of the School. The fact is that here a number of living organisms, each doing well its own work, but each doing a limited work, have been brought into such living relation with one another as to enable each to receive and to get reinforcement. The problem is not one of mechanical adjustment, but of living multiplication and reproduction. Each element brings to the whole School of Education a factor without which there could not be an educational whole, and hence a factor which reacts upon every other so as to increase its efficiency and multiply its power.

It is especially significant to note that the School of Education now incarnates in itself all the elements which constitute the theoretical educational problem of the present. I mean we have right here in concrete, actual institutional form all the factors which any writer on education of the present day would lay down as involved in the problem of education. Thus we have the so-called practical and utilitarian element. This comes not merely from the Chicago Manual Training School, but from the stress laid from the first in the Cook County Normal School upon manual training, and the important place given in the Laboratory School to social occupations. Thus the motor, the executive side of the individual is appealed to. The School of Education recognizes that an "all-around-education" is a mere name if it leaves out of account direct interest in seeing things and in doing things. The so-called practical and utilitarian factor is thus here not an isolated and independent thing, but the utilization of an otherwise wasted (and hence perverted) source of energy. But the School also stands for the most thoroughgoing recognition of the importance of scientific and cultural elements in education. Moreover, the School stands for these things, not merely within its own structure, but (through the training of teachers and the promulgation of sound educational theory) for educational progress and reform far beyond itself. I can imagine no greater catastrophe than that an institution which embodies within itself three distinct lines of pioneer work should become so institutionalized, or so content to rest upon its past, as not to recognize that there is still pioneer work to do, and that there always will be as long as the horizon of life recedes with every step we take. To have initiated these distinct and independent portions of an educational system represented here, was a great achievement. To stop here, not to recognize the growth that may come from their fusing into a vital whole, would be a calamity all the greater because of what has been achieved in the past.

I should not be surprised to know that some of the parents who hear me have been asking themselves, as I have been speaking, why these matters are put before them rather than before the teachers in the various schools which have come together. The answer is simple and direct. It is because the teachers coming from these various institutions, and elsewhere, and who now constitute the teaching staff of the School of Education, cannot do the work which they have to do without a co-operation which depends upon your sympathy. And by "sympathy" I do not mean either a mild and courteous toleration, or a willingness to excuse and palliate our various mistakes, but a sympathy which *understands* what it is that we are trying to do, and which co-operates and criticises because it understands and thus wants to help us better perform our own task. There is one kind of coeducation to which no one takes objections — one which is absolutely indispensable if the future of the School is to be as significant as its own past exacts of it. This is coeducation of teachers, children, and parents by one another. I say *by* one another rather than *with* one another, for I think coeducation is not the passive reception of the same instruction side by side, but the active participation in the education of one by others. If the School is to move along steadily and as a whole within itself, it must be because it moves along with the body of parents who have intrusted their children to it, and because in turn the parents move along sympathetically with the endeavors and experiments and changes of the School itself.

Hence I have not hesitated to put before you the past of the School as indicating the problems which it has to meet in the future. I am sure that, if you will but bear in mind this past and consider the particular portion of the School in which you individually are most interested — elementary, high school, academic, or manual training — from the standpoint of the complex whole into which each such part enters and in which it must function, you will understand the work of that particular part much better, and be able to extend a more effective sympathy to us in the way both of encouragement or of criticism.

To make this very general talk somewhat more concrete, let me close by mentioning a particular point in which we shall especially and increasingly need your co-operation. In spite of all the advances that have been made throughout the country, there is still one unsolved problem in elementary and secondary education. That is the question of duly adapting to each other the practical and the utilitarian, the executive and the abstract, the tool and the book, the head and the hand. This is a problem of such vast scope that any systematic attempt to deal with it must have great influence upon the whole course of education everywhere. The School of Education, both in its elementary and secondary departments, is trying to make its contribution to this vexed question. Utility and culture, absorption and expression, theory and practice, are indispensable elements in any educational scheme. But, as a rule, they are pursued apart. As already indicated, the different schools which have entered into combination here make it necessary for the School of Education to fuse hitherto separated factors. In this attempt we shall need your sympathetic intelligence. The fusion cannot be carried on without some modification, some transformation upon each side. It will be necessary to introduce more of the physical and manual element, more of expression in art, and of construction in the shop into the academic curriculum. On the other hand, without attacking or weakening the integrity of technical and technological preparation, it will doubtless be found necessary to infuse the more direct industrial and practical education with things derived from the larger outlook of history, science, and all we mean by general culture. Just because the isolation of these things in the past has told so heavily against the best interests of education, it is all the more necessary for an institution like the School of Education not to perpetuate this divorce, but to take earnest, constant, and progressive steps toward developing a balanced educational system in which each element shall have its proportionate place, at the same time enabling students to emphasize whatever side their own tastes and interests most definitely demand.

In the second place, I wish to enlist your sympathy with the social ideals and spirit which must prevail in the School of Education, if it is to be true to its own past. We trust, and shall continue to trust, to the social spirit as the ultimate and controlling motive in discipline. We believe, and we believe that our past experience warrants us in the belief, that a higher, more effective, more truly severe type of personal discipline and government may be secured through appeal to the social motives and interests of children and youth, than through an appeal to their anti-social ones. We have confidence in their responses to the normal demands of an orderly social life, rather than in their reactions against exactions which seem to them personal and arbitrary. The growth of this social spirit in an institution the size of this School must, indeed, be slow, but there is absolutely no reason why it should not be steady and irresistible—no reason, at least, if the parents understand the methods that are operating, and in all their conversations and intercourse with their own children, and with the teachers of the School, co-operate to this end.

There are, of course, very different methods of conducting a school, so far as what is ordinarily termed order and government are concerned. Doubtless part of the most important and influential result of the work of Colonel Parker was due to the constant warfare that he waged against appeal to purely extraneous and external motives in education — the use of bribes and threats as means of keeping students at their work and "in order." No experienced and successful teacher has any doubt that right *instruction* is the primary means of maintaining discipline. Students who are interested in their work and in doing their work well are not students who are a menace to the well-being of the school. Wherever there are boys and girls there will be a certain amount of mischief and carelessness. Such things are easily enough taken care of as they show themselves. The only serious threat to a school's "order" is found in a class of students who decline more or less deliberately to accept responsibility for their own conduct; and who consequently throw it back upon the teachers to see to it that they behave themselves properly. Under this system more or less constant espionage, a system of definite and detailed rules, appeal to purely competitive motives, reports, comparative standings, become inevitable parts of the school system.

The School of Education feels, however, that it is offering facilities which ought to appeal to a class of both parents and teachers who want a different kind of a school. There certainly is within the area which the School of Education can draw upon a sufficiently large number of parents and students who are interested in education for the sake of education, and in the school for the sake of what can be got from it worth having to justify an attempt to reduce to a minimum all of these mechanical and unworthy devices for keeping school order. It must be possible on some other basis to secure and maintain a wholesome social and moral spirit in the school. It cannot be too definitely stated that it is only to this class that the School of Education wants to appeal for material for its student body. It does not anticipate nor demand an unreasonable, much less a priggish, perfection from its students. But it does want and expect those who come to it to be sufficiently aware of and interested in the educational privileges which are extended to them to take some initiative in developing that tone and atmosphere which will make unnecessary a servile dependence upon the ordinary machinery of petty rules, constant markings, reports, etc. The moral and social influence which the members of the student body exert upon each other is far more potent for good in the long run than any devices which teachers can set up and keep going; and the presence or absence of this influence must go back largely to home influences and surroundings.

The School of Education wishes particularly, then, the co-operation of parents in creating the healthy moral tone which will render quite unnecessary resort to lower and more unworthy motives for regulating conduct. We also ask the co-operation of the parents to help make the school in some sense an organizing center for the general social interests of the children, so far as these are carried on outside of their own homes. We do not wish the School to take the place of the home in furnishing children and youth with natural social recreation and modes of intercourse, but it is desirable that the interests, in the way of diversion and recreation, of children out of school be at least in general harmony with the pursuits of the children in school. Such matters as simplicity in dress, to the extent at least of fitness of dress for the school work which is to be done, and of lack of ostentation and display, are not to be despised. The cultivation of a democratic tone, an *esprit de corps* which attaches itself to the social life of the school as a whole, and not to that of some clique or set in it, requires no apology for mention. Indeed, an indefinite number of things might be specified. But time does not permit this, and so I must confine myself to the general statement that we hope that you will not look at either the Elementary or the High School as a place to which your children go just for the sake of receiving instruction. We hope you will remember that a school has a corporate life of its own; that, whether for good or for bad, it is itself a genuine social institution — a community. The influences which center in and radiate from this corporate social life are indefinitely more important with respect to the moral development of your children than is simply class-room instruction in the abstract; and with reference to development of an all-around intellectual efficiency is at least a matter of equal importance.

Without, then, any further attempt to specify details of matters in which we shall need your co-operation, I may close with an exhortation to bear in mind the fundamental importance to yourselves and to your own children, as well as to the School, of the maintenance of the right sort of social aims and spirit throughout the School as a whole.

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THE ORGANIZATION OF HISTORY IN THE CURRICULUM.

HISTORY considered as the means of securing an appreciation of social life, rather than as furnishing the mind with an accumulation of facts, is vitally related to experience. Viewed as social life it is the realization of the way in which men are learning to live together, and are securing from nature the materials and processes for the readjustments of society. It is not a picture of past achievements and worn-out ideals to be passively observed, but it is active and progressive, the living present made clear to each individual.

The key to the appreciation of history is the experiences of the individual. The mind's power to utilize and improve upon the methods of the past is dependent upon its own constructive efforts. Each individual responds to the stimulus of the activities of others according to the nature of his own activities, and personal experience furnishes the basis for understanding the similar experiences in the life of the race. Only in so far as the individual is actively engaged in trying to solve the problems of daily living has he the ability to comprehend the efforts of the past.

It becomes impossible, then, to outline the subject-matter of history in the curriculum without relation to the conditions of the school and the home in art and industry. Our first consideration must rather be to secure for the child an opportunity to use his constructive powers in connection with the fundamental problems of life. If individual experience is a necessity for gaining any vital knowledge of race-experience, we must first see to it that the child is given contact with the materials and forces of nature and learns to use these for social ends. Civilization rests upon foundations built up by industrial effort, step by step adding discoveries and inventions by which man links nature's power with his own, and thus secures greater freedom from bondage to immediate necessities. In no other way can the child gain a true insight into man's use of nature than by his own struggle with its forces and powers.

It is the awakening to the necessity for individual activity that has brought the industrial arts into the schools in recent times and has given them a constantly increasing prominence there. Under the names of "manual training" and "domestic science" the occupations which have been fundamental in the growth of the race are now made a part of the education of the individual. The child is no longer obliged to spend all of his time in absorbing the knowledge gained by the experiences of others, but he has also opportunity for such activities of his own as enable him to assimilate this knowledge and use it according to his own needs. He gains ability, not merely to repeat past conditions, but to utilize his acquirements under new conditions.

It is true that there are still communities where the school may depend upon the home to provide the opportunities for industry, but city life certainly gives no such advantages. Not many years ago the household arts required the active service of all the members of the family, and country life gave abundant means for the children to come into contact with the raw materials of industry at first hand. Now very little is done in the home. Concentration in cities and division of labor have taken away the demand for the domestic arts. It is interesting to note that as these industries have gone out of the home, they have reappeared one by one in the school. This is the natural effort of society to restore to the individual that which he has lost through the demands of social progress. It is the attempt to give to the modern child in the school something of the value that industry once gave in the home. Through it there comes unconsciously the feeling of responsibility, the sense of the importance of being useful in the world.

Although the value of the occupations is very generally recognized today, we are still slow to see the important part that they may play in reference to the older studies of the curriculum. The physical activity is in itself incomplete, and the business of education is to bring the child into a consciousness of all that underlies this activity. The occupations should be a means of introducing the child to science and history. Otherwise they are as fatally divorced from thought as is the occupation of the worker under the modern factory system, and may be no more effectual in increasing the range of vision.

On the other hand, those subjects which we are pleased to term "thought-studies," when they are pursued without reference to personal experience, fail of motive, of relation to reality. They come to the child as so much ready-made information, having no real connection with himself and anything that he has to do. There is, therefore, something artificial in his method of study, something apart from the way in which he learns when away from the school. The home and neighborhood life educate through the necessities of effective action, and this is the process by which the greater part of the education of the race has always been carried on. The school loses its effectiveness in just so far as it becomes artificial, isolated from life; and this is its greatest mistake.

With the machinery of the workshop now in full operation in the school, there is no longer an excuse for this isolation. It becomes our business to reconstruct the subject-matter of history in relation to the occupations, and so gain for the child the full value of study, the power of thought and action combined. It is not enough to select subject-matter that is within the child's comprehension, and arrange it in an orderly manner for presentation. The world's history may be dealt out in convenient portions, but with no assurance that it will give power to any individual life. It is rather for us to select such material as is related to immediate action, to supply the demand made upon us by the child's own questioning spirit. The fascination of satisfying a real need has a greater carrying power than any set task, and will lead farther into the subject-matter than lesson-giving.

The relations of thought and action prove that art and industry are fundamental as an introduction to history. They are also the natural outcome of the study. The child who is interested in following the processes by which people have worked out for themselves their modes of life has a strong impulse toward creation. He repeats inventions in his imagination and is patient in his zeal to work them out with his own hands. This is not only the imitative, but the inventive process. The effort to reconstruct a model both tests power and is suggestive in itself. New ideas come to light and new methods grow up in the mind as possible improvements. Expression of thought in constructive ways is therefore the essential thing in the cultivation of the artistic spirit. The reproduction of constructions from the simple to the more complex phases of human life makes growth in artistic power correspond with growth in understanding.

In both occupations and subject-matter it is the elements which have caused progress that are the important ones. Inventions and institutions that have advanced the types of social life are the significant ones for our purpose. Building, weaving, cooking, gardening, must all begin in simple forms, but the child who engages in them will gain a constantly increasing control over his own powers and the natural resources of his environment. He must also consider at first only the simplest types of social activity and organization. Industrial life of a primitive kind may give the method of insight into the later, more complicated conditions, and start him on the road of development. Even the making of the simplest woven fabric or piece of pottery throws a new significance upon clothing or the daily household meal. In the same way, the attempts of the primitive family to supply its needs of food, clothing, and shelter from the scanty resources of its environment reflect a light upon the modern home in which it appears more interesting and valuable.

While history simplifies modern life for purposes of study, the comprehension of the present is its purpose, and the interaction of past and present the most important element in its method.

It is the problem of education to organize the school so that there is no break between the life within it and the life that lies around it in society. Environment furnishes the opportunity for the individual to act and to get reactions from society. Thus he is able to view the relation of his acts and so come to an estimate of their value. The comprehension of the life and industries of the environment gives meaning to the child's own life and work.

If there is to be a unity in the child's life, he must feel the connection between his own doing and the activities about him. In no other way can he learn to use his knowledge in new situations. Knowledge gained in solving the problems of daily living, and then applied in further action, gives control over activity. This is the cultivation, not only of the power to do, but also of the power to shape action to meet ever-changing demands. The development of power in one direction has its full value for the child only when this power is used. The use of it is the means of discovering new opportunities for development.

The organization of the subject-matter of history in relation to environment and to the immediate occupations of children is directly opposed to the setting up of the various stages of race-development as the basis of the curriculum. This basis must be found in the present movements of social life, and not in those that have passed away. The value of history lies in that it gives insight into present social life, and not in a knowledge of the past as past. This view of history does not admit of anything so fixed and formal as the "culture epoch theory" of education. Such a scheme prevents a constant study of the child's mind and a shaping of the material of history to meet his needs. If it be true that in certain general features the development of the race and of the individual parallel each other in a culture point of view, yet this does not prove that the various stages of race-development are necessarily to be followed in the education of the child. Only the study of the child himself can teach us what his needs are and how to use the race-culture in his education.

Local conditions of industry and of organization often furnish the strongest lever for investigation and make an imperative demand for explanation by means of the developments of the past. Active interest in modes of public service has the same value as the industrial arts in its stimulus to intelligent study. It is possible for the children to become to some slight extent even workers for the betterment of social conditions and to find occupation in this practical effort which supplies the place of the workshop in its impulse toward investigation. The whole history of building may be thrown into perspective by the care of the schoolroom or grounds, and the growth of the community in organization underlies the formation of any local improvement association. History, civics, and art so reinforce one another that there need be no effort of the child to learn meaningless things, and no lack of opportunity to use his knowledge for practical and to him important ends. It is possible to make education serve the purpose of giving an intelligent understanding of life, and also the power of shaping and directing its forces and conditions.

The following plan of work indicates the possibilities of relating the industries, art, civics, and history. It is only one of many schemes, and is intended merely as a suggestion. In the earlier part of the course the relation between the occupations and the subject-matter is especially apparent on the theory that the specialization of the subject-matter should be gradual. The close connection of study and occupation in the first three grades gives such an impulse to the succeeding work that in the later grades they may proceed more independently of one another. However, the necessity for an interaction of study with immediate experience, as typified by the occupations, should not be forgotten throughout the elementary-school work.

GRADE I.

Occupations: Cooking; gardening; making and furnishing playhouses. In connection with this work the primary arts connected with food, clothing, and shelter are introduced.

Studies: Activities of the home and neighborhood; the farm; the shop; comparison of methods of work with those of primitive peoples, as the Indian and the Eskimo.

GRADE II.

Occupations: Cooking, making of furniture, weaving, and simple needlework.

Studies: Sources of materials used in occupations and industries in their simple forms; hunter life; shepherd life; stories of the Hebrews and of the Arabs; primitive farming.

GRADE III.

Occupations: Cooking, gardening, and making of pottery.

Studies: Beginnings of trade and city life; settlement of a farming community; stories of pioneers; story of Ulysses.

GRADE IV.

Occupations: Wood- and metal-work: making of boats, cars, roads, bridges.

Studies: Local history with the evolution of local industries, and means of intercommunication; stories of famous explorers; simple problems of public service, as water-supply, illumination, streets, bridges.

GRADE V.

Occupations: Weaving and sewing.

Studies: Colonial history, with emphasis upon household industries and the relation of geography to social life; problems of public housekeeping, as protection — fire, police, and sanitation.

GRADE VI.

Occupations: Wood-work and clay-modeling.

Studies: Colonial history; the Revolutionary War, and struggles for liberty in previous times, as in Greece, Switzerland, and Holland; physical culture and games of Greece; Greek architecture and sculpture; notable buildings in the locality of the school; beauty in the modern city.

GRADE VII.

Occupations: Printing, illuminating, and bookbinding; embroidery.

Studies: The period of discovery and exploration in American history and the settlement of the West; development of the arts of printing and of inventions connected with navigation (The study of mediæval conditions is a valuable background for this work); conditions of modern labor compared with those of the guild period.

GRADE VIII.

Occupations: Wood- and metal-work.

Studies: Home economics, including civic regulations in regard to building and sanitation; Roman or English history, with the emphasis upon the evolution of government; structure of the local government.

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THE COLLABORATION OF HISTORY AND GEOGRAPHY.

Novelty can be the only warrant for the discussion of an educational topic by one who has for twenty years been a school-teacher, rather than an educator, and who is confessedly ignorant of even the primary principles of pedagogy.

In the general policy of reconciling the various factors in the school curriculum, a task particularly characteristic of the modern period, learned men and learned bodies of men have frequently advocated the study of geography as a fundamental basis of history. They have likened geography to the stage upon which the drama of history is played. In this view, it becomes as indispensable as the stage with its setting is to the play. Some consideration of this relationship has gradually found its way into the texts on American history; but the tendency to keep the various studies separate and the fear of creating an intellectual hash have conspired to prevent any serious attempt thus far at combining the two subjects in the curriculum. Indeed, such collocation will be impossible so long as we teach geography by proceeding from the known to the unknown, and history in precisely the inverse order. Geography, in the United States, persists in maintaining a north-to-south arrangement in treating both groups and individual states. The history of the United States, in nearly all its aspects, shows an east-to-west direction.

Even the educational world does move. To realize how extensively geography is now taken into account in teaching American history, one need only compare a modern text-book on that subject with one made even ten years ago. In the old book, the maps were confined to showing routes of discoveries and explorations; to the portions of the New World claimed by the different European powers; and to campaigns in the different wars. In the keen competition of the present day, no publisher would think of presenting such a text for adoption. On the contrary, he spends large sums on the maps and is content only with the best. These costly, full-paged maps must show the conflicting land claims of the colonies, the territorial accessions, the sectional differences, the trans-continental routes of travel, the distribution of population, and kindred topics. Many of these must be relief maps to present the full effects of topography. In addition to these large maps, the text must incorporate small sketch maps to show the distribution of electoral votes in the presidential elections, the position of the frontier at each census, the increase in the production of various resources, and similar information, germane to the evolution of the nation. Old-time maps are as much out of date as old-time illustrations. "Washington crossing the Delaware" has long since given way to reproductions of documents.

Since it is a recognized fact that publishers supply rather than create a demand, the improvement in texts indicates a broader view on the part of the instructor. A text is really a guide-book to the unknown country, although some may have mistaken it for a means of easy conveyance thither. To find additional guides to the important sights on the way is the constant task and remunerative delight of the true teacher. In this respect the teacher of American history has passed through a school of experience. It took a long time to learn that illustrative matter could be found on every hand; to realize that home-made maps and charts are infinitely superior to those purchased, even at a great price; and to ascertain that a census report had a value other than a door-weight.

It has required an almost equal length of time to realize, if indeed it is yet fully realized, that the art of teaching history is not to force information into the pupil on the inflated-tire principle; to make him a walking encyclopædic wonder on dates and impersonal facts. But if the purpose be to develop the reasoning powers, to make the student capable of judging men and causative events, geography is the handmaiden of history. On the other side, for inculcating the æsthetic or appreciative taste, literature, as it describes events in history, is most useful. The degree to which these subjects can be made to assist each other turns entirely upon the manner in which the history is taught.

The "administration" method of teaching American history does not require a use of geography except for military campaigns and the additions to the national domain. It is true that such an ancient and honorable question as, "What were the principal events in the administration of John Quincy Adams?" might possibly include within its purview a mention of the opening of the Erie Canal. More likely the pupil of today has learned, long before President John Quincy Adams appears upon the horizon, that the Mohawk valley marked one of the five great routes to the West. With this primary information, the pupil has been gently drawn by teacher and text to reason why it should have been given the preference of the route for the long-proposed Atlantic-Ohio Valley Canal. His attention has been called to the easy waterway by the Hudson, Lake Champlain, the St. Lawrence, and Lake Ontario; but the point has been made in his mind that this route involves a wide detour and passes through a foreign country. To cross the mountains with an artificial waterway was manifestly impossible, since no water was available for the high levels. The small lakes in central New York furnished such a water supply and made possible the building of the canal up the Mohawk to Lake Erie, really passing around the northern end of the mountains.

The effects of this one canal upon the Northwest will lie within the province of commercial geography. Only too frequently this commercial aspect is omitted and the canal treated in its political relations. In the same way, many of the topics commonly treated in the texts as purely political will be seen by a little investigation to be grounded in geography. The Louisiana purchase is usually treated to show its effect upon the strict-construction principles of the Jeffersonians; but much should be said of the twenty-year contest between Great Britain, France, Spain, and the United States over the possession of this property. Every waterway of the West which led to the Mississippi River was a potent argument for the American ownership of the drainage basin.

The Florida purchase on the surface may be considered in connection with the uncertain boundary of Louisiana, even in this aspect being a geographical question. But a wider view finds an exemplification of the international principle that the discoverers or owners of the upper parts of a waterway were entitled to an outlet to the sea. If there had been no Mobile Bay into which the products of the American country floated, the result might have been quite otherwise with the portions south of the thirty-first parallel.

No one now treats the Monroe Doctrine as a political, or even diplomatic, question independent of geography. American insularity is the base of the doctrine. American solidarity on the South and the Northwest was the object to be achieved. It was largely a matter of geography. So instances might be multiplied, if an appeal for the connection of history and geography were necessary. The Burr expedition, the Mason and Dixon extenuation into the Missouri Compromise line, the north-and-south direction of the Mississippi in influencing southern hopes as the secession movement came on, the east-and-west direction of trunk lines of railways, and the inexhaustible topic of internal improvements might be cited in evidence. Even political history is largely sectional, and so comprehends geography. Take the westward movement of candidates for the presidency, as illustrating the westward movement of the people: for the first thirty-six years invariably from the Atlantic coast plain; in 1824, from Kentucky and Tennessee; in 1840, from Ohio; in 1848, from Michigan; in 1860, from Illinois; in 1896, from Nebraska.

It is a current saying that the history of the United States can no longer be written from the congressional debates. Whatever protest may be heard from the glow-worms of cloistered scholarship, the people have come into their own. McMasters and others have demonstrated that the causes of the unification of the United States into a sovereignty must be sought among the people themselves. Macaulay led the way in England. A census report is an exhaustless mine for material upon this aspect of history and geography. The influence of climatic zones on occupation and habits is easily proved by tables in the report which show the birth state of citizens of each of the states. Maine, for instance, has given 214,000 of her children to Michigan and only 214 to Alabama. Of the inhabitants of Illinois 17,916 were born in Massachusetts, but Georgia contains only 920 from the Bay State. In return, Georgia has contributed only 59 inhabitants to Massachusetts. Virginia gave 45,000 citizens to Missouri, and received in return less than 500. Texas contains 66 people born in Georgia to 1 born in Massachusetts.

The collaboration of these two agencies in the curriculum, which might be more fully illustrated if space permitted, may be irrational, unscientific, illogical, and pedagogically an incongruity; but it is feasible, achievable, and desirable.[1]

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[1] Mention of a few books bearing upon this subject may not be amiss, although not an attempt at a complete bibliography:

ELLEN CHURCHILL SEMPLE. *American History and its Geographic Conditions.* Boston, 1903. (This is a new book, whose scope is sufficiently indicated in its title. It can be very highly recommended.)

HEREFORD B. GEORGE. *Relations of Geography and History.* Oxford, 1901. (This is another valuable book, treating of universal rather than American history.)

FRIEDRICH RATZEL. *Die Vereinigten Staaten von Nord-Amerika.* Munich, 1878, 1893. (Volume I is entitled "Politsche Geographie," and is an excellent treatise on physical geography and its connection with American history.)

ISRAEL COOK RUSSELL. *Rivers of North America.* New York, 1898. (A scholarly and readable description of the influence of various waterways upon the topography and commerce of the northern part of the New World.)

N. C. SHALER. *Nature and Man in America.* New York, 1891. (Concerns, in portions of the book, commercial and political influences of topography.)

JUSTIN WINSOR. *The Westward Movement; The Mississippi Basin.* Boston, 1897, 1895. (Two invaluable works on the trans-Alleghenian region before 1800.)

U. S. Census Reports. Vol. I, "Population." (This volume in any recent report contains valuable maps and information concerning the distribution and movement of population. The statistics may also be found in a compendium of the census.)

National Geographic Monographs. New York, 1896. (Especially in this series may be consulted Hayes's "Southern Appalachians and Northern Appalachians" in Vol. I.)

National Geographic Magazine. Washington, 1889. (Especially Semple's "Mountain Passes" in Nos. 2 and 3.)

POLITICAL HISTORY IN THE ELEMENTARY SCHOOL.

POLITICAL history has to do with that phase of institutional life which centers around government. Government is one of the five fundamental institutions in which human thought and feeling are embodied. The other fundamental institutions are the church, the school, industry, and the family. There seems to have been a time when the family was the one undifferentiated center out of which and into which all institutional activity flowed. In the course of time, and probably at long intervals, one after another, the other institutions began to appear, and in time became sufficiently separated in organization and function to be looked upon as institutions in themselves. Notwithstanding wide differences in organization, these five institutions are the parts of one organism. In a sense they are not only fundamental, but co-ordinate, parts of human society. The political organ, however, has this peculiarity, that it has been set apart, by the experience of ages, as the regulative part. Government establishes the relations of the various institutions to one another, and the conduct of individuals in relation to institutions and to each other. This function of government gives it a sort of primacy among the other institutions. Indeed, historical students have been so impressed with the importance of political history that they have declared that "history is past politics." The history of government — political history — judged by its logical relations to the other phases of institutional life, is a subject of first importance.

Educational values, however, are not solely determined by logical relations. Hence, the relations which political history sustains to the other phases of history cannot be the sole principle of selection and emphasis in history work. The relation which the facts of history bear to the ability and experience of the learning mind is a principle of paramount importance, especially in the grades below the high school. Ignorance of this principle, or failure to give it proper weight, explains much of the blundering committed by very high authorities in history when bestowing their wisdom on the history teachers of the elementary school.

From the nature of government and of the functions it must carry out, the facts of political history are, as a rule, farther removed from the early experiences of children than are the facts of industrial and social life. The child is born in the midst of a family, and before he reaches school has formed many simple conceptions, and carries in mind many concrete pictures and experiences drawn from family life. The simple and obvious relations existing among the members of the family are fairly clear to him. He himself assumes a different attitude toward father, mother, brother, and sister. By the age of six he has, in fact, pushed his observation of social affairs and relations far beyond his immediate family. He carries to his first school a corresponding knowledge of industrial affairs. He knows some of the occupations of his community, and how they are related to one another and to his own needs. In a less degree, too, he has gathered matter touching the church and the school. These four sorts of activities go on around him and immediately touch his experience in many ways. This knowledge, of course, is more or less unconsciously acquired, but it is none the less valuable material, out of which he will later reconstruct the history of the great past.

During the pre-school period the child's opportunity to learn about political affairs is much more limited, and his experience with them is much less direct, than is the case with the other kinds of neighborhood activities. He may see policemen or other governmental officers, and may even participate, in his way, in a city or national campaign. Nevertheless, these objects and events, and the things for which they stand, are less familiar and farther removed from his experience. Some of them come to him only at great intervals of time.

This unconscious process of getting first-hand knowledge of the great phases of active life go on in about the same way, and without much disturbance of the ratio of emphasis, for the first few school years. But somewhere in the primary grades comes the study of home geography, which includes, as one of its phases, the study of what man does in the community. From the point of view of the teacher of history, this is a most excellent preparation for the study of history, because in his own neighborhood the pupil will find in concrete action those five fundamental phases which make up the life developed in history. In this study of home geography the pupil, as a rule, begins that emphasis upon government and its machinery which, by the aid of teachers and text-book makers, he keeps up as long as he studies history. There is no good reason, however, drawn either from the nature of the different phases of life studied or from the stage of the pupil's mental development, why any emphasis should be placed upon the political phase at this stage of the study. Although there is no sound reason why emphasis should now be placed upon the study of government, the cause of such emphasis is not far to seek. The teacher who does the work and the superintendent who constructs the course of study very naturally carry their own knowledge of history, obtained in high schools, normal schools, or colleges, into the grades. This is predominantly political history. Again, the text-books on American history are largely devoted to political history. The result naturally follows.

This study of the institutional activity of man in the pupil's own community is not history in the ordinary sense of that term, yet it is one of the best preparations for the study of real history that could be made. If we now advance with the child to his first study of the past, we discover that the material which takes deepest hold on his life and creates in him a love of history is not drawn from the field of political history. The only important exception is found in military history. But military events are so remotely connected with political events that the child in this stage of growth sees little or no connection between them. Story-writers, understanding the child's interest in adventure and his appreciation of the heroes, have chosen explorers and warriors as the central figures of their stories. Jane Andrews's *Ten Boys,* the stories of Greek and Roman heroes, McMurry's *Pioneer Stories,* and others are drawn from other fields than political history. John Smith and Nathaniel Bacon furnish better material for stories than Governors Yeardley and Berkeley, Miles Standish than Governor Bradford, and George Washington the surveyor and warrior than George Washington the president and statesman.

In the transition from the history story to the history text the pupil comes upon matter which is predominantly political. The older grammar-school histories confined themselves almost exclusively to political events or to events which grew directly out of political movements. This was overemphasis. Although the modern grammar-school histories are better balanced, they still give more attention to political events than to either of the other great phases of life, and probably more than is desirable. There is not only an explanation, but a justification, in part, of the present position of political history in our best school texts. The new history places emphasis upon continuity in historical growth. This includes not only the tracing of the continuous succession of related events, but also the tracing of the continuous life-history of great ideas. Because of the nature of political history and of the relation of government to the other great institutions, its events and ideas are not only more obtrusive, but run out, as it were, and relate themselves to a wider range of interests than those of any other phase of history. Therefore the writer of history texts finds it possible to use most readily political ideas and movements as centers for the organization of his facts. The period of the American Revolution is a most excellent illustration of this point. The struggle for the rights of Englishmen sweeps in the great majority of events from 1760 to 1775, and the struggle for the rights of man those from 1775 to 1783. From 1783 to 1789 the important events cluster around the struggle for a stronger national government. The history from 1789 to 1860 is almost as well organized by the struggle between democracy and nationality and slavery and nationality. The above is a partial explantion of the reason why political history occupies so prominent a place in our grammar schools. What is the justification? The preceding explanation is, in part, a justification. If history is in character what is indicated above, then it must be so studied to arrive at a true view of it. A second argument which may be urged is found in the fact that the pupil in the last years of the grammar school, especially the boys, begin to have a deeped interest in politics, and in questions relating to government, than ever before. They have reached a stage of growth which enables them to understand political questions more fully than before. A third reason may be found in the fact that so great a percentage of pupils end their school career with the grammar school. No opportunity, therefore, should be lost in the effort to make them acquainted with the spirit and functions of the government of our country. Thus far no means have been devised for this end so efficient as the systematic study of the origin and progress of that government as revealed in the progressive development of American history.

If there is any conclusion to this discussion, it is that in the first five or six years of school life, when the rapid transitions of the child's powers is the source of authority as to procedure, the study of non-political history should be emphasized; and that in the last two years of the grammar school, where the degree of mental strength permits the logical relations of the subject more and more to dictate procedure, political history should take precedence.

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CIVICS IN THE ELEMENTARY SCHOOL.

Of all societary activities those alone that we call political are strictly the subject-matter of civics. To teach civics directly, then, is to teach only the political part of man's institutional life. With indirect civic teaching, through school life, games, literature, history, etc., though often more effective than the direct teaching, this article will not deal. It is understood, however, that the result of the direct teaching I have in mind is not information merely, but a character that will show itself through a citizenship which is more efficient, less wasteful of human energy, and more ethical than is at present true.

Such teaching, if we can get it, will justify itself to the individual because it will enlarge the experience and efficiency of the child in one important field of his human environment. On the other hand, from the social point of view, it will also be justified because our democratic institutions fail to function effectively just to the degree that they fail to attain a membership that is intelligent, ethical, and active in the use of political machinery.

The problem is how to give such a direct civic training. At least one fundamental essential may be mentioned; namely, the unit topic must be a social activity, a whole political function. It cannot be merely a part of such a function. To teach the whole of a political function requires attention to two things: (1) the function *per se* — the thing done for somebody; (2) the political machinery — the way in which somebody does the thing. Exclusive attention to either one of these factors will make the civic teaching unnecessarily barren.

For example, in the past, much of the teaching of civics in high and grammar schools has consisted largely in memorizing the constitution of the United States, learning the names of the presidents, governors, mayors, etc.; the number of men in the Senate, the House, and city council; their salaries, their age qualifications, when and how they are elected, how they pass laws and ordinances, etc., etc.; in short, a maximum of the political mechanism of our political society, past and present, with a minimum of the concrete functions which this mechanism was designed to perform: too much study of mere machinery and too little study of the work it has to do, and of the persons who must furnish motive power to make the machinery go. Such study is like the old study of chemistry, which set us to memorizing pages of formulæ, without opening our eyes to the fact that these symbols were connected with such interesting activities as the burning of wood and coal, the rusting of our skates, and the energy of the electric battery connected with the doorbell, etc.

The other extreme is nearly as bad, and may become just as common. It is possible to call the attention of children to one political servant and activity after another—policeman, fireman, lamplighter, teacher, streetcleaner, soldier, etc.—with almost no conception of the fact that they are but factors in the functions that we perform for ourselves by means of definite and intelligible political machinery. For example—if another illustration from the teaching of chemistry may be allowed—the sudden coming of the laboratory found many teachers unable to use it: and a great deal of dabbling with test-tubes, reagents, alcohol lamps, etc., was the result. Now, this was about as far from the real study of chemistry as was the earlier memorization of symbols and equations. So, "Turn the student loose in the laboratory, and let him see what he can find out for himself," has had its day in chemical and physical science. Now, the reaction from the old formalism in the teaching of civics has set in, and we are in danger of dabbling with desultory observation of the mere externals of political functions. Once we abandon the side of political machinery as a base from which to approach the teaching of civics, and accept in its place the side of political function, we find so many interesting things being done that we need to know pretty well what we are about, or we shall lose ourselves and our pupils in comparatively unimportant details.

It is possible, however, to begin at the function side of the civics problem, and yet not lose sight of the connected political machinery and fundamental principles. In other words, it is possible to do genuine civic teaching from the kindergarten up—

to begin to put the child in touch with his political environment, and continue the process upon simple lines of progress in every succeeding grade of the elementary schools.

The following story will illustrate both the genuineness and the limitation of the civic ideas of a second-grade child who had not been specially taught:

Two second-grade boys were talking about their school. John wondered how there happened to be a school anyhow. Fred explained: "Why, this is our school!" John didn't know what he meant. Fred explained further, with great show of wisdom: "Our fathers pay some money and buy this building and hire some teachers, and then we can go to school here." "How much money do they pay?" asked John. "Why, I-er think-er some of 'em pay as much as twenty-four cents," said Fred.

Now, Fred had a well-balanced notion of what I have called the whole of a political function. He knew the function of a school *per se* in teaching the children of the neighborhood; and he knew also the correlative fact of a social tax and direction by a group of people back of this function. On the other hand, his idea of the amount of the social contribution that we call a tax was inaccurate, and he probably had no idea of the details of the process of collection of the tax, election of teachers, etc. His notion was extensive enough, but it lacked content.

For example, the idea of the public-school function which with this second-grade boy, was confined to one school and one neighborhood, may be deepened so that the eighth-grade child will include within it all the schools of the city—kindergartens, elementary, high, normal, evening, schools for the deaf, the blind, manual-training schools, cooking schools, schools for apprentices, etc. And his idea of political machinery by which these functions are performed may include, not merely the idea that a few neighbors put in twenty-four cents apiece, but the true process of taxation of all the citizens, and the true process of election by the citizens, directly or indirectly, of mayor, aldermen, civil-service commissioners, school board, superintendent, teachers, engineers, architects, janitors, etc.

A kindergarten child can be helped to well-balanced notions of the functions performed by public employees whom he sees about their work. The eighth-grade child and the adult will not need to study more factors of a given political function, but the two essential factors must be given more detailed meaning.

Thus, by choosing different concrete functions of different political units for study in successive grades, and by making the study of those functions chosen for the higher grades more and more accurate in detail, it will be possible to secure a fairly continuous development of the child's experience and intelligence relative to our political institutions.

Here the practical problem presents itself of how to give this more careful study of a political function in a higher grade than in a lower. It is easy, as has been suggested, to do a little desultory, even interesting and valuable, observation of various political activities that are going on all around us. It is not so easy to connect these activities with the facts of social machinery and motive power back of them. We have not been in the habit of studying political functions in this way, and our text-books do not help us much in the effort to see the whole of any single function of city, county, state, or nation. Until books on civics are written in such a way as to maintain a proper balance between function and mechanism, the teacher will have to depend upon herself to do this.

In practice it will also be found that the larger content of a given political function, say the school function of Chicago, may be given, not only by studying more fully the function as it is performed today, but by studying its history. In fact, it is doubtful if the function can be satisfactorily studied without studying its history. The social object in his studying it at all is that the student may be the more likely to help perform the function better than it is now performed. Nothing can do this for a student so well as the story of its evolution. Here again we are confronted by the fact of a dearth of material. There is perhaps nothing in the whole range of possible subject-matter for use in the elementary schools of more interest to the children than the story of the evolution of such functions as the fire department, the water system, the police department, the park systems, the means of lighting, etc., of a large city. But these stories are not at present available. They must be made so, in every considerable town and city, before the teaching of civics in those towns and cities can become adequate. The same is true of the functions of the county and state, and, to a less degree, of the nation. There is nothing that can take the place of such historical material in the adequate teaching of civics.

We need also a statement of the principles on which a workable, progressive, and socializing course of study in civics can be made out. Perhaps such a statement cannot at present be made. It is hoped, however, that the following may prove a helpful start in this direction:

1. Growth in civic experience, intelligence, and social ideals in connection with civic life is as slow as growth in character itself. Any attempt, therefore, to teach civics in a few weeks or months of the last year or two of the elementary-school course will prove abortive. Although not necessarily continuously, there should be some specific civic instruction in every year of the child's school life.

2. Beginning with the functions which are performed by persons whom the child himself frequently sees, and taking care, as a rule, to study different functions in the upper grades, some of the most interesting and typical functions of every political unit in which the child lives — city, county, park district, state, nation, etc.— should be the chief subject-matter for the teaching of civics in the elementary school.

3. As soon as practicable, perhaps from the first grade, surely from the third, something of the history of each function should be included in the above studies.

4. As soon as the child is old enough to get a fairly accurate idea of the complete political machinery of election, taxation, administration, etc., by which a political unit performs the function that he has studied, he should be taught something of the range and variety of the other functions performed by practically the same machinery.

5. In the upper grades the child should be led to compare the functions performed by small and local political units, like

city, county, etc., with those of larger units, like state, nation, etc., to the end that the division of labor among them may be realized and the principles on which this division is based understood.

6. In the upper grades something of the history of the formation of each of the political units as a whole should also be studied.

7. In every function studied, and at last as a generalization for all functions, the effort should be made to have the student see and feel the reciprocal obligation of honest and effective service by those persons whom we call public servants, on the one hand, and of loyal, generous, and intelligent support by those whom we call the public, on the other.

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THE RELATION OF HISTORY AND INDUSTRY.

One of the greatest difficulties which confront social and educational workers at the present time is the prevalence of the habit of dealing with the problems of life in an isolated way. Problems have been broken up, and the fragments have been relegated to those whose experience and training have given them no appreciation of the situation from which the real problems emerged or the direction toward which they tend. The real function of man's work in nearly every department of life has been obscured by the complexity of the machinery devised for carrying it on. The machinery of the school, of the church, of the state, as well as the machinery of the industrial world, has become an end in itself. It is no longer regarded as an instrument for social service.

The overcrowded curriculum, the isolation of interests, and the general confusion which pervades our educatonal system are merely a reflection of the condition in the larger world. This condition, however, is merely a transitional stage, and should be recognized as such. The school has a real function to perform, and the educational machinery, sooner or later, will be so directed as to fulfil this function.

It is because the period of education is the period of leisure, the period when the individual is removed from the storm and stress of life, that it is the period for gaining a higher vantage point from which society as a whole can proceed. It behooves educators, therefore, to recognize this situation and to deal with it in the light of our highest truths. It behooves educators to recognize relations which actually exist and to utilize them; not waste their energies in unrelated efforts, or in attempting to force relations which have no basis in fact.

The most significant steps in the establishment of industry were made ages before the dawn of the historic period. These early achievements have the same relation to those of later times that the foundation of a building has to the structure built upon it. They have acted as the determining influence in the formation of our instincts and impulses, on the one hand, and in the formation of our social institutions, on the other. The history of the race, in its early stages of development, is the history of these achievements. The complex societies of later periods, however, do not lend themselves so readily to such a comprehensive treatment. The general history of such periods is often presented as merely formulated statements of the political, the industrial, the social, and the ecclesiastical history of the period, with little reference to their interdependence. Such abstractions as these, though they may form a part of history, do not constitute real history. History is life, history is activity, before it is a record of life and activity. Besides, history is a record of life and activity before it is an abstraction of this record. To present the bare abstraction in the name of history is to substitute a stone for bread. To ask the child to transform the stone into bread would be absurd. Suitable materials must be made available before we can expect the child to use them. The study of bare records of life is without profit. The study of fragmentary records is even more fruitless. To function normally in the life of the child, history must become a part of life, a part of the child's experience. This function can never be realized from the mere study of books. The makers of history have been those who have acquired a rich experience and who have been sensitive to the needs of the times. The incorporaton of this experience as a part of one's own implies that the child be given the opportunity to acquire a rich experience, that this individual experience be enriched by kindred experiences of the race, and that a training be provided which will cultivate a sensitiveness to social needs.

It is as absurd to attempt to explain the history of a people by its industries alone as it is to ignore them as an essential factor in such an explanation. Just as individuals are moved by different motives, now one and now another becoming dominant, so societies are moved. The activities which correspond to these motives weave themselves into the tangled web of life, now one and now another forming the dominant pattern. It is because industry is an activity corresponding to an ever-pressing need that it is always present, and that it usually plays the leading part.

History is not industry, it is not science, it is not art, it is not politics, it is not religion, it is not education; it is all these in one. In the study of simple societies the interplay of all these forces can readily be perceived. In the study of complex societies the task is more difficult; but, no doubt, many of the difficulties which now obstruct the way will be removed. The history of a period should reveal the play of the most dominant forces operating in society. It should reveal the essential elements in the situation, throwing emphasis where it naturally belongs. In this way no particular interest can possibly usurp the entire field.

If we trace the development of those instincts in mankind which are at the root of our industrial development, we shall find that they are the same instincts which have built up our social institutions. The instinct which led man to exploit his environment for food, and other materials required in the satisfaction of his daily needs, prompted him to explore wider and wider areas, until he laid tribute to the resources of the whole world. The historical explorations and migrations of modern times depend as surely, though less directly, upon industrial activity as did the wanderings of primitive clans in search of new hunting grounds, or fresh pastures for their herds and flocks.

The instinct, which man first exercised in the transformation of raw materials which he consumed, under the stimulus of personal need and social approval developed into the true workmanship instinct. This instinct, though overlaid by artificial habits, is still powerful, and finds expression in the planting of colonies and in the development of the industries upon which the success of a people depends. To be sure, the industrial motive in colonization is frequently colored by other desires; but a close examination of the real situation reveals the fact that in no case can the industrial motive be disregarded. Mr. Weeden, in his *Economic History of New England,* states that, notwithstanding the alleged motive of individual liberty of conscience, the majority of the Pilgrims "left home and braved terrors of sea and wilderness to better their condition economically and socially."

The instinct which led man to give and to receive presents, to barter the products of his labor for other products, gave impulse to those activities which have developed into the commerce of the world. The army and navy have been developed chiefly to extend and protect commercial rights. Captain Alfred T. Mahan, in his book entitled *The Influence of the Sea Power upon History,* states that the key to much of the history, as well as of the policy, of nations bordering upon the sea is to be found in these three things: production, with the necessity of exchanging products; shipping, whereby the exchange is carried on; and colonies, which facilitate and enlarge the operations of shipping and tend to protect it by multiplying points of safety (Vol. I, p. 28).

The social instinct, which has ever prompted man to foster those industries which promote the life of the community, operates to unite men and to secure the advantages which come through co-operative action. Such united effort was first secured with reference to industrial activities through the influence of the dance. Gradually co-operative effort has been applied to new fields and has been fostered by other agencies. It would seem that in recent times the development of the social consciousness and the means for securing effective co-operation have not kept pace with the advance in technical appliances. Social industries, developed in obedience to instinctive needs and social approval, constitute the main streams of progress — the main features in the history of mankind.

The emphasis placed upon political history in the school is an illustration of the fact that we have become lost in the machinery of the process. The *machinery of government* appears to be of greater importance than the *people* who are governed. A fragment of experience is thus made to stand for the complete situation. When a complete view of the essential factors operating in a given period are known, when the differentiating interests of the child make a demand for a corresponding differentiation in subject-matter, the study of a particular phase of history is a natural procedure. But until a complete view of the situation is secured, until the interests become differentiated, it is folly to waste energy upon mere fragments. By its very nature, political history, divorced from the industrial questions in which it is rooted, is a mere "fairy tale." Though intended to develop patriotism, it is more likely to foster superstition, thus blocking the way to a real understanding of social conditions and forces. It is such teaching that augments the numbers which form an easy prey to the self-seeking politician.

The original dependence of government upon industry, and the interdependence of the two in later times, are everywhere evident to the student who penetrates beneath the surface of the statements formulated in historical works. The form of government evolved by the primitive clan was the form best adapted to meet the needs of people living under the conditions which determined their life. The size of the clan, the division of labor between the sexes, the spirit of co-operation within the group and the feeling of hostility toward all outside it, the willingness to follow a leader in time of danger, and the reluctance to do so at any other time — all these characteristics were determined in large measure by the reactionary effect of the industries of the people upon their mode of life.

The effect of the industrial system upon the political system is clearly shown in the development of industries which require co-operative action. The conquest of wild beasts, the utilization of the food-supplies in the deep seas, the domestication and care of animals together with the protection of the same against the raids of wild beasts and neighboring peoples, the clearing of the soil and the care of crops — all these are so many steps in the organization of community life. The steps in the evolution of industrial systems thus have a significance in relation, not merely to government, but to life as a whole. Each step marks a *revolution* in the political and social, as well as in the industrial, system. Each step introduces new factors, which result in the reorganization of the old factors so as to take account of their relations to the new. Abundant illustrations of this truth are to be found in historic times. The rise of the ancient city-state was the counterpart of the development of systematic agriculture in the river valleys. The draining of the marshes, the clearing of the primeval forests, the development of systems of irrigation, were too complex and arduous undertakings to be carried on effectively without the support and direction of a political structure of considerable stability. The city-state was a response to this need, and while, from one point of view, it was essentially a community organized with reference to consumption, it made good its claim to the products it consumed by furnishing the stability, the control, and the means of protection which were necessary at that time. With reference to industry, the city-state was a transition from the house industries to the handicrafts; with reference to political control, it was a transition from the gentile system of government based upon kinship to the political system based upon territory; and with reference to the progress of civilization as a whole, it was the transition from barbarism to civilization.

Different phases of social progress are not isolated, but vitally related. When removed from their natural setting, they lose much of their real significance. Presented in such a light, the history of the city-state — or, indeed, that of any other period — cannot tell one-half of its part of the story of human progress. Whether the motive which is most dominant in the life of a people be trade as in Phœnicia, political control as in Rome, individual freedom of thought and action as at Plymouth, the methods which are adopted by each people in working out its destiny do not and cannot ignore the controlling power of the industries which maintain and advance their lives. This being the case, it is folly to imagine that one can understand the history of a people without an understanding of the activities upon which it depends for its maintenance. To get any positive value from the study of history, we must discover the fundamental factors that operate in the period, and the relations that these bear to one another. It is because industry is a permanent and a fundamental factor in all historical study that it cannot be ignored. It is because it paves the way to an insight into the other phases of history that it should receive especial emphasis during the elementary-school period.[1]

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[1] This is a partial statement, and ignores the reasons which are based upon the attitudes of the child and his need of practical activity. It has not seemed best, however, to attempt to crowd into this article all of the points that can be made to reinforce this point of view.

A WORD ABOUT LOCAL HISTORY.

THE fact that a teacher chooses to teach local history shows, it seems to me, that her purpose is not to familiarize her students with events, but to waken in them a sociological interest and a habit of social observation. The value of such a purpose is so large that it eludes statement in a sentence or two, and is so generally appreciated that I need not try to put it into words. It is the root of the practical altruism of today — the altruism that shows itself in social and civic reform.

Under such an aim tales of the past comprise only one province of local history. Another is the study of present conditions of society. The little child at home is hardly conscious of his own connections with other people. He sees, indeed, an interplay of service among the members of his own family in the activities of cooking, sewing, sweeping, laundering; perhaps he has a few wider acquaintances — the grocery store, the milkman, the postman, a blacksmith's shop, the fire engine. But his conception of purpose, relations, in these things is vague. The kindergarten sets about clarifying his images of this work and of these workers, and so begins accumulating data for history study.

I outline a few of the more special social activities practiced in the kindergarten of the Francis W. Parker School. The children plant a garden and care for it during the spring; harvest the crop, pop corn, and can pumpkins in the autumn. During the year they prepare and serve one or two simple luncheons, and occasionally bake birthday cakes. They make valentines, and play postman in delivering them. There is in the room a playhouse made by pupils of the first grade. The kindergarten children play with this and care for it, dusting and cleaning the rooms, repairing the furniture, washing and ironing the doll clothes and curtains and bedding. Besides these special efforts at social analysis, the general endeavor of the kindergarten is to organize into a mutually helpful society these children, who so far in their lives have been used to act as unrelated individuals.

But vivid as the knowledge of these activities may become, it is not enough. A whole world waits to be seen. The duties of the teacher have become those of an admiring cicerone of the world. Our first grade has spent a year in building and furnishing a playhouse for the kindergarten. That playhouse and the children at work upon it became a type of a very active society and pointed the attention of its members to its prototype; for, while the pupils were planning their things, they studied arrangements and furnishings in their homes. During the work they became carpenters, architects, rug-weavers, potters, painters, paperhangers; and there is, perhaps, nothing like impersonation for establishing interest in a character. So the children were anxious to visit grown-up people who were doing these same things in abler ways. And here, as always, the attempt to do work for themselves with materials and tools quickened their understanding and appreciation when they saw someone else use these same tools and materials for the same purpose; for they knew now some of the difficulties and the pleasures of the workmen they were watching. Besides, they felt a sort of fellowship with these workers, and that seems to me the most valuable result possible. In comparison with our modern houses and methods of work, the children made a little study of the homes of Indians and Eskimos, with a consideration of some of the activities of those people.

Our second grade has pursued the same kind of work; but, since the children are now better able to make excursions than they were in the first grade, these visits themselves, rather than a play-activity, have been the basis of study. During the fall the children harvested the products from their garden. This determined the subject for the first quarter. They visited a large truck farm. There they learned that every day the gardener drives with his produce to Haymarket Square. When the children returned, they visited a nearby grocery and asked where the proprietor obtained his vegetables. At the same time they learned the sources of some of his other supplies. The most accessible of these places they visited—Haymarket Square, South Water Street, the shipping docks, a freight depot, a wholesale grocery, a coffee-roasting house, a cracker factory. After such excursions their work was to assimilate the mental material collected. They played grocery store in its connections with the docks and the wholesale houses, sending out orders for goods. In buying they used toy money, and kept account of everybody's expenditures and income. They figured up some of the grocer's expenses, and decided whether or not he ought to charge more for goods than he paid. They made paintings of orchards, stock farms, shipping docks, sugar mill, garden, train, market square, and factories, and connected them by paper roads with the central small grocery. They discovered the facts of expense, profit, hired labor, and transportation; but the kernel of the work is the conception of the interrelation of industries. In the other two quarters cloth-making and wood-working were studied in the same way as this food industry.

For three years, then, the children have been opening their eyes to surrounding conditions. One important characteristic of society has not yet received emphasis — that of movement, change. In our third grade we study the story of the growth of Chicago. There are many points of view from which this subject can be attacked. Perhaps that of chronology is the simplest and most attractive. But, however it is done, to be most valuable it must be a study of contrasts. The consideration of present Chicago cannot for a moment be dropped; for the understanding of that is what we wish ultimately to achieve.

There is a great mass of material from which to choose. The thing to be accomplished will determine the choice. What are to be the aims of the work? For one thing, to infuse into the children's conception of Chicago the romantic flavor of long ago; for that is synonymous with an eager and loving interest. In following out this purpose, I would emphasize the time before the fort, when Indians and French trappers hunted our woods and paddled on our streams and lakes. Another purpose is to show the reason for the birth of Chicago, its connections with the rest of the country. To realize this, the children must study the geography and topography of Illinois; its old river routes; its old products and industries; transportation means and routes to the East; the industrial conditions of the other parts of the continent. This study should be picturesque and have little to do with maps. Most important of purposes, perhaps, is to cause the children to begin an analysis of present Chicago, to call their attention to some of the simpler social organs. In fulfilling this aim, the teacher must emphasize the beginnings of these organs, their growth, and the reasons for instituting them. She will find the history of sewers, street-paving, water supply, fire department, health ordinances, and postal arrangements very interesting. There are two general ways of dealing with such history. If the teacher's prime purpose is to quicken observation of special civic organs, the departments may be studied separately as to their purpose, development, and work. But something will be gained if they are again studied as incidents in the story of the city, as details in the picture of the whole. Otherwise they will lose their right proportions, since in reality many things grow contemporaneously and are interdependent in development. But if the teacher's purpose is to give the children a romantic story and the conception of general change in the city, she will serve it better by all the time keeping these departments subordinate. One thing she will surely endeavor to accomplish above all others — that her children shall come to think Chicago's life not a finished and closed book, but an interesting and ever-progressive drama to be watched. So books will be of little use compared with relics, the tales of old settlers, living officials and departments. I have seen a most successful use of such materials at the Chicago Normal School in the study of civics. The children of the primary grades organized the playing of fire department, postmen, policemen. This necessitated a close scrutiny of the doings of firemen and the others; asking elders about wages, time, laws; visits to the engine house and post-office. Advanced grades made further investigations and studied more complicated departments — those of health, streets, and building

Chicago cannot be studied commercially or historically apart from the country at large. It is the realization of her value to the country and of the country's contribution to her that makes this local history intelligible. I hinted above at the necessity of the children's seeing the industrial conditions of the states or colonies that sent immigrants to Chicago, the circumstances of their politics and wars, the distances and the methods of communication. The story of Chicago is really the story of the "winning of the West." Yet the large city is surely the best point of view from which her inhabitants can look upon wider local history, since she is both result and cause of movements in her neighborhood, and since in her the history of the neighborhood is vivified. So it is right for the story of Illinois to be treated as incidental, as a background, during the study of Chicago; but in another grade it leads to the story of the discovery and colonizing of America, and so on into United States history.

I see four points of view from which local history may be studied: that of civics, of industries, of story, and of comparison. In a small town, where industry is not of far-reaching connections, and where civic activity is rather unimportant, the story would perhaps have most attractions. And since, probably, the little town's own drama is too limited to claim attention for a long time, the broader story of the neighborhood and the state would be the most valuable material for study. In a large city, at a time when there has been some unusual civic movement, and with a class whose interest to some extent lies there, the most vigorous and economical way would be immediately to take hold of civic questions. And at all times industries make appeals to most children because of the opportunities for action and for dealing with real material, and because of the picturesqueness and comprehensibility of certain phases. But perhaps as successful a way as any to call attention to surrounding conditions is to study some novel and interesting society that lacks these very organs which the teacher wishes her pupils to realize in modern life; an Athenian story, for instance, that shows news being carried by runners immediately, and vividly sets forth some of the values of newspapers, telephones, telegraph lines.

What grade shall make these studies? I cannot see that this question is of great importance. I should say that there is only one danger — that of waiting too long to begin. Indeed, why should local history not have a little attention in every grade? It need not claim all the history time. The stories of other peoples may stand beside it for purposes of comparison, contrast, variety; each with its own point to make; but let the little children play at civics and industries, and hear the stories of pioneers, and let the older pupils study municipal departments and political history.

I have written of the history of Chicago, but any city contains the same elements in differing relations and offers the same points of attack. Manufacture and trade attract attention, municipal movements invite investigation, and behind and around every town stretches the story of discovery and conquest and growth. But every teacher will find her own ways to make her points. If she will have for her guiding purpose to arouse intelligent social interest, her material and method will be unlimited.

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HISTORY AS AN INSTRUMENT OF EXPERIENCE.

History is instrumental. It exists for itself and for another, as do all instruments. But, like those instruments, it exists chiefly for the other. The scalpel as a work of skill and because of its structure has value as a bit of hardware, but its chief value is that it is useful to the surgeon. One practiced in surgery was once upon a time handicapped in his practice, and centered his attention upon working out this instrument and learning to use it. As an instrument it made the surgical art more powerful in the discharge of its function.

So history exists for something else, and this other thing is immediate experience, everyday operations, the problems, difficulties, and emotions of present-day experience. It rises out of immediate experience, and returns into the experience, which is enriched by its return. It is used to provide satisfaction for the needs of the men of today. And it exists because it ministers to those needs.

There is some value in an analysis of this instrumental character from the standpoint of the practical man.

History has its origin in the things of today's experience. It is a construct. The historian constructs it out of two elements. The first of these is that material which comprises sources, remains, and monuments. By visiting geographical locations he is able to find the remains of cities and other constructed works; and by visiting libraries he is able to find letters, state documents, books, and memoirs. This material is all in existence in one form or another. To the deciphering of it he must bring an experience replete with present-day activity. This is necessary because his method of deciphering must be that of inference. He is accustomed to this method because it is the most valuable and the most familiar tool of the individual in understanding his fellows: he has continually to infer from actions the nature of persons. And here he has to infer, from certain results, the events in the lives of those who produced the results. It is evident that knowledge of present-day activities, of their problems, and of the attitudes of society to them cannot be too well known. Also it must be evident that without this knowledge there will be no construct. It is in this double sense that we say that history has its origin in present-day experience.

The process of inference which we use in interpreting remains, sources, and documents may be carried to a greater or less distance, and according to each attitude its return to immediate experience differs in time and in richness as we view it from the practical man's standpoint. The first of these halting-places is the one related to the historical specialist in the narrower sense. By him is meant the expert in history who views it purely from the intellectual and factual standpoint. His task is a most difficult one, as is quite apparent, because the remains are meager and disconnected, the sources colored by social and personal prejudice, and the monuments given to exaggeration. His work from his standpoint is considered complete when from certain productions *X, Y,* and *Z* he infers that *A, B,* and *C* did *l, m,* and *n,* and did these as conditioned by *p, q,* and *r.* In the most favorable case he would have all the events that have ever occurred in the past tabulated, and in this tabulation the individual would be treated in an entirely impersonal manner, and his psychical states treated as so many elements in the system so laid out. The emphasis is on facts; valuable facts, but facts. The aim is to figure out just what was done and why it was done by *A, B,* and *C*, as they lived two thousand or two hundred years ago. History from this attitude is a systematized *record* of the *past.*

If this attitude were taken in a school, two facts would be evident, and two or three questions would arise. In the first place, the child cannot begin history in any intelligent way until he has had sufficient experience of the activity of his own society to enable him to make his inferences and to appreciate them in an intelligent manner. He could hope to appreciate political history only in proportion as he understood what were the problems of modern politics, and to appreciate religious history only as he knew the problems of the religion of today. In the second place, he will have acquired a more or less systematic subject-matter.

Of this, two things are characteristic: first, it is factual, a record, and intellectual in its standpoint; and, second, it deals with the past and not with the present.

These questions will arise: What facts will the child be given to interpret? Should he be made an excavator and be sent to the mounds of the mound-builders, for instance, with pick and shovel to find out how these people lived? Or should he be given the varying narratives about these people, to sift the evidence and form his own conclusion? Will he be given a single literary document containing the best available statement about them, and made to reproduce this? The answer will depend largely upon the individual situation and upon the stage of advancement of the pupil.

The next halting-place in the inferential process is that which is related to the dramatist in history. This attitude presupposes the constructive activity which builds up the panorama of history, as we have just seen, but uses it as the material from which to make further inferences. The inference is, of course, an intellectual one, but it has a distinctly dramatic, emotional tone. Its ideal is reached when it has aroused in our immediate experience feelings parallel to those which we would imagine such conditions to bring forth and such results would indicate. This is done by giving life to the psychic elements in the system. Instead of the individual being dissected into elements, he is considered as an organism, a unit, an individual possessing blood and flesh. Instead of history being impersonal, it becomes personal; instead of an anatomical subject, a living body. Such inferences require a strong creative imagination and an ability of detachment from the present organization of conditions.

The imagination is sometimes sufficiently strong to *real*-ize the historical situation without prop or assistance. But there are at hand several ancillaries. The eye may contemplate the historic scene; it may look at the remains, the tools, and the documents of the ancient people. The ear may assist by taking in the dramatic presentation from the lips of an interested narrator.. Or the individual may work with tools similar to, live in the homes similar to, and carry on the occupations similar to those of the people investigated, and by his motor activities reinforce the imaginative process. History so viewed is the *real*-ization of the *past.*

If this attitude were kept in the school, the content of the subject-matter of history would have an essentially different tone from that produced by the former attitude alone. It would also prove more interesting to more children and would lead to greater appreciation. Why the dramatic should be considered of more interest, and therefore of more immediate value to the individual, we shall not discuss: the fact is evident that it is. Whether with this attitude there is the same thoroughness in the acquisition of facts as in the former, is a question. There is also another question: May not too many props be placed under the dramatic activities, so that, on the one hand, these would not have their full cultivation, and, on the other hand, there would be a danger of the spectacular being so vivid as to produce distraction from the intellectual content? This is a question of ever-recurring importance.

At both of these halting-places a return may be made to immediate experience and may bring to it an enriched content. At the first, for instance, we have two benefits. The first is that the interest in facts, as facts, which is common to all minds, though in varying degrees, is ministered to. The second is that a new apperceptive system has been added to experience, viz., facts connected with the past. Because they are connected with the past, as past, they are isolated from the vital systems of the present. At the second halting-place will be the same system of facts, roughly speaking, and in addition thereto there will be the satisfaction of a number of other interests in immediate experience—the dramatic, æsthetic, and emotional interests. This shows us that there is an increasing good in the two cases. But there yet remains a third attitude which may gain sustenance without exhausting the fertile soil of history.

We started out by saying that history is instrumental, and it has been indicated how it is instrumental in providing a new apperceptive system of facts relatively isolated, and in enriching the dramatic and intellectual activities and affections. But it is evident that, aside from the emotional satisfaction in the historical experience, the subject-matter is hazy and unrelated. Teachers complain that even after the children have been led through the dramatic presentation of history, and have seemed to enjoy it ferociously, they have little left, and that litle consists of fragments of facts and faded memories of emotional content. Hence these attitudes must be supplemented, if for no other reason than to remedy this. The physiologic basis of retentiveness cannot be altered, but, apart from this, the problem of retention is greatly forwarded toward solution by carrying the instrumental character one step farther.

The individual is busied in getting all he can out of and into experience. And everything in the way of his heart's desire in this direction he overcomes. Fortunately, he meets with constant obstacles, and his problem is to get these out of the way. This general problem differentiates itself into intellectual, manual, religious, moral, social, or economic problems, embracing the whole nature of man. In these he is vitally interested, and every activity tends in their direction. It was from these interests he started out in his quest for satisfaction and assistance in history, and to these he must return. The problem is one of organic relationship between the past and present. If we have this organic relationship, the isolated system of fact would be organized into the living, vital interests of life, and the facts and principles would, by well-known psychologic laws, be remembered and vitalized. And, further, the present experiences would be enriched and endued with power. To illustrate the organic relationship: Suppose the life of an ancient people to have been constructed and *real*-ized, that, for instance, the child gathered food and ground it with them. Now, this dramatic attitude may be carried one step farther. The food-problem is a most important one today, but for the child it may vary from seeing the baked loaves handed out from the wagon to a general conception of wheat, miller, and baking. First make the problem of food real to the child by a course in social occupations, if you desire, and then with the *problem in mind* go back into the dramatic situation, as has been outlined. The gathering of food and grinding will not then be merely the way the ancients did it, but can be made to appear as one step in the evolution of the food-question. The relations by which the past may be worked into the present are many and various. And when it has been effected, there is a closeness of organization which, in great probability, would otherwise be acquired unconsciously, and therefore imperfectly.

Such a standpoint might be called the *practical* attitude toward history. To reiterate: Its chief value is that it enriches the experience of the individual with intimate and valuable factors. It presupposes each of the other attitudes toward history and gathers them up into itself.

Pedagogically, the objection has been made that it implies a too great reflective power in young children. But, in the first place, it must be remembered that, since every attempt to teach a child is an experiment for the uses of which the subject-matter has to be modified, the reflective subject-matter must also be suited to the needs and capabilities of the problems of the child. And, in the second place, there is a possibility that the objectors have the mistaken idea that, because the child lacks a knowledge of the advanced and analytic terms of the content of reflection, he has no proficiency in the activity of reflection.

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ÆSTHETIC DEVELOPMENT THE PROBLEM OF THE FUTURE.

THERE is no new or radical reform in the idea of æsthetic development in education. Music, rythmic games, drawing and painting, schoolroom decoration, and last of all hand-work mark the progress of a long line of regenerative efforts. With due appreciation and respect for these efforts, it must be acknowledged that our boys and girls grow up into men and women who in home and civic life continue to sin against the laws of beauty. The subject of æsthetic standards and their relation to the social question is in the air. The school becomes a final hope in social reforms. This means that in a maximum of eight years the educator must take a mass of youthful humanity ranging in instincts from barbarism to sensitive refinement, and substitute in their lives power of intelligent judgment for unreasoning instinct.

Under most favorable conditions it is difficult. Under some limitations it is next to impossible. The problem of the present seems to lie in the organization of material in the light of a closer analysis of child-nature and of logical processes.

Beauty is the result of conformity to laws — laws which manifest themselves in relationships of the concrete. Such relationships may be included in the term "harmony." There must be harmony between the idea and its sentient expression. There must be harmony between the component terms of expression. Beauty is bound up in very definite qualities. Visual beauty, for instance, depends upon unified proportion, line, dark and light, and color. Power to create, and power to appreciate, depend upon the ability to abstract these qualities. Standards, then, correspond to the ideas which have been brought to consciousness. For example, supposing a child differentiates only red, yellow, and blue; some one of those colors may arouse a pleasant sensation. Out of that experience he abstracts the idea of that one color as the most desirable. Until a wider experience has taken its place that is his standard of color beauty. The color-sense of one who is conscious of only the primaries can be effected in but two ways: first, the range of color concepts must be widened; this may be done through the reaction of expression as in painting; secondly, *individual* experience may be modified and accelerated by comparison with the results of others. To this end art masterpieces are used in education. If the child knows only red, yellow, and blue, and thinks red the most delightful of color-experiences, how much will his standard be affected by, we will say, a neutral-toned color symphony? It will be outside of his world. If the art masterpiece is to affect the standard, it must contain this familiar element. It is owing to failure in making this connection that much effort is abortive. To resume the color illustration, if the child is enabled to see an harmonious arrangement in which his favorite red is the keynote, as in a Navajo blanket, a bit of Indian beadwork, primitive pottery, or Egyptian wall decoration, he has been carried along the line of his own experience to the recognition of something in common with it, but better. He has been able to make more complete abstraction. No longer satisfied with his first ideal of an indefinite mass of red, he seeks satisfaction in an orderly arrangement of which it is the keynote.

Æsthetic development is an endless succession of such experiences. Elevation of standards is the result of creative activity. It is a part of the inner life, the outgrowth of individual experience.

In the efforts toward æsthetic redemption methods have at various times reached antipodal points. In one extreme the child has laboriously drawn cubes, mugs, and Greek honey-suckles. In the other, he has poured out his soul in fearful and wonderful creations. Because they were done without models and denoted a certain intellectual emancipation, we have seemed to expect him to find in the freedom of self-expression all the essentials for æsthetic growth. The cubes ended, as all isolated technical training is apt to do, in a mechanical exercise usually distasteful and almost meaningless. The undirected self-expression ended in the acquirement of a number of original conventions, both crude and ugly, which by much repetition must not only have hindered more accurate observation, but also have reacted dangerously upon the child's taste. By the time that the critical faculty developed, disgust for his grotesque efforts put an end to interest. It is only sane to expect that between these two extremes, and through their mutual adjustment, the desirable mean will be found. The art work must possess an organic center, just as science and mathematics do. While the term may suggest pedagogical puritanism, there must be a technical sequence. The newer educational philosophy is teaching us that technical sequence does not exist in any specific set of things, nor in any specific set of exercises. It exists in the consciousness of the teacher. This consciousness must include the intelligent discrimination between the whim of the child which is purely an individual and passing interest, and his deep vital interests. The latter are in their nature universal, and should afford the stimulus for artistic expression. The teacher must know the child's capacity for bridging difficulties in expression by technical effort. This implies a knowledge of the standard which normal children can attain by means of honest methods and appeal to proper stimulus. Art organized with reference to these various adjustments will of necessity reach out into every part of the curriculum, not because it is the handmaiden of other subjects, but because it would afford æsthetic expression to the prevailing intellectual and emotional interests. It is evident that through isolation technical training may proceed without affecting the æsthetic standard, as may also an undirected and random form of expression. Neither does information insure such development.

The ability to name and place long lists of pictures may accompany vitiated taste. A confusion between the subject in art and the technique which constitutes the *art* of the thing leads to a corresponding confusion between moral and æsthetic purposes in the use of art masterpieces. The Sistine Madonna is of value in the schoolroom as an ethical influence. Divine motherhood is a subject which touches and idealizes the most vital chord of child-experience. The qualities which make it a work of art are found in its lines, its arrangements of dark and light, and its color. These are highly developed and remote from the child's point of view. He does not abstract them at all. The æsthetic influence of such a picture would be subtle and difficult to trace. We would not wish to deny some unconscious effect, for the same argument would sweep away all our theories about environment. Do not misunderstand me; I am not arguing against such pictures; they are ethically invaluable. The point I wish to make is that, when we have hung the schoolroom walls with Madonnas, baby heads, animals, and various *subjects* dear to the infant heart, we are apt to rest on the supposition that we have contributed all the essentials for his proper æsthetic development. In reality we have left the greater part undone.

We must organize the materials which we take from the arts of the past in the light of psychology and logic rather than sentiment.

No product of the child should end in itself. A satisfied contemplation of his own work is a deadly influence. He should have a chance to compare it with something which is, in a way, an idealization of his own effort.

We need examples which are simple, sincere, and direct in technique. The primitive and archaic constitute a suitable primer. Free from the elaborations of a fuller interpretation of truth, a child is able to abstract from them color and line, converting them into tools for his own use. The evolution of this subject-matter should be carefully adjusted to the developing consciousness. Such adjustment will make it significant. In conjunction with the proper activities it will modify standards, and will finally grant the child his rightful share in the æsthetic inheritance of civilization.

There are two subjects which I would emphasize as related with this question of æsthetic development. They are preeminently the problems of the future. The first I have suggested, namely the proper selection and use of art masterpieces. In this connection, primitive art offers an almost unexplored field.

There is need of students to organize the material, need of creating a sufficient demand for it to insure its being reproduced in a form cheap enough for school use. The other subject is the so-called "art and crafts movement." This has come upon us so swiftly that it is still in an undigested state. Sometimes it appears as busy-work—a few baskets, or a little weaving, to keep idle hands from mischief while the teacher is attending to others. Sometimes technical skill is attained without developing any idea of beauty; sometimes good design and color accompany weak and slovenly construction. Sometimes in the high school the lathe is multiplying the worst sins of the factory. The fact that art and manual-training teachers all over the country have felt the need of combining forces is promise of a day of better things. Whatever the standards of our people may be in the fine arts, their daily life has not yet been deeply touched by them. The desire of the ignorant to realize the outward forms of democracy in the symbols of social equality causes the demand for cheap imitations of the trappings of wealth. The rapid industrial changes which have substituted the factory for home manufacture have removed the typical processes from the public knowledge to such an extent that society has lost the sense of the value of labor and of the fundamental relations between function, form, and material. A degraded standard is inevitable.

The art and crafts movement is a protest against these conditions. Whatever may be the dream of its leaders, its greatest influence will undoubtedly be educational. It will not overthrow the machine. It will create a background of experience against which to place the machine. The school must furnish the experience which social conditions have removed. No young man or woman is going out of the high school properly fitted for the duties of citizenship if he does not know the value of the materials of life in terms of labor units. Neither will he have a high standard unless he has a consciousness of the fundamental fitness of things. He can get such knowledge only by personal experience. For this reason it is necessary to give the craft a place in the curriculum. It matters not whether it is that of pottery, textile, wood, or metal work; its value must lie in its development from primitive conditions through its various evolutionary stages ending in the factory. In the racial histories of art its beginnings appear in utilitarian motives. As the æsthetic interest emerges and persists, art follows two general lines of development. Where allied with construction, it vitalizes the creation, and yet subordinates itself to the utilitarian and structural idea. Out of this alliance grow architecture, all of the artistic crafts, and the art of decorative design. When free from the limitations imposed by this alliance, its development progresses from symbolism and picture-writing to the unhampered expression of emotion in sculpture and painting. A craft cannot develop normally without the almost immediate expansion of the utilitarian to the æsthetic. Proportion, line, and color are essential elements of construction. If properly related, the art and craft ought to engender a love of honesty and character in construction. They ought to help the individual to eliminate the worthless trash, and enable him to simplify and elevate the standards of his life.

In closing, let me reiterate that any creative experience which brings to consciousness the fundamental laws of beauty gives the individual a key by which he may unlock the door of every fine art. He may be silent in their portals, but he listens, and, as he grows in understanding life, becomes more joyous and more complete.

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HANDICRAFT IN THE PUBLIC SCHOOLS.

THE value of the manual element in modern educational methods is not questioned by those who have given the subject even a small amount of study. With the most enthusiastic advocates of hand-training the subject has become almost a religion, their ideal an idol. And the ideals differ so much and are so many that there seems danger of a return to the days of pantheism. We are all, however, either consciously or unconsciously, struggling toward the same trutn — simplicity. The path may be found somewhere between the indifferentism of the skeptic and the too ardent worship of the fanatic — and a "little child may lead us."

In their devotion to educational "methods," psychology, and child-study, teachers have been in danger of forgetting the child and forcing upon him the results of theories, ignoring the all-potent factor of personal interest. Now that a reaction has come, there are to be found those who say it is only the pleasure of the child which is considered, and there is no education in it. One would like to ignore all such criticism and wait for the future to vindicate the position of present methods. But if one is connected with the public schools, the public must have a reason for the service rendered. It is even necessary to assent to the fact that manual training is a fine thing, because it will make boys handy about the house and able to mend things, and possibly earn a little money; while all the time the teacher knows in his heart that all that is of no importance compared to the power which the boy is gaining — power to control himself and to bend to his will inanimate things. The ability to do things gives a consciousness of power and a self-poise that would never come with any amount of purely mental work. One of the best arguments I ever heard in favor of manual training came from a boy of ten who was struggling with a basket. After a hard fight in silence he announced: "This is fine work for the temper." He was not noted for patience or perseverance, but he wanted that basket, and he kept at it until he had finished it. Who is not willing to admit that he learned more than how to make a basket?

Knowing that all who are trying to solve the problem of suitable industrial work are anxious for help of a practical nature, I will give a few statements of what has been accomplished in our schools. Forty-five minutes each week is devoted to the industrial work. The work of the first four grades is under the direction of our primary supervisor, Miss Holton, and consists of paper-folding and weaving — rug- and hammock-weaving — mats, and very simple baskets of rattan and raffia. The plan of work has been changed somewhat each year since its introduction — always in the direction of simplicity. At first the designs given were too difficult, requiring too much assistance from the teacher. The child cares more for the finished product if it is the result of his own unaided effort, even though the object be far less valuable intrinsically. And it matters little what is done, but much how it is done. The foundation for appreciation of good form, good proportion, design, and color, may be laid by the teacher, whatever the object constructed. If it be some very simple, useful object, so much the better, as it is with that class of objects that our lives are mostly concerned. We have too long restricted beauty to exceptional places.

In the making of our Christmas tokens the youngest children are guided toward simplicity — are taught the dignity of straight line in construction and decoration, and guarded against tawdriness of all kinds. Here the taste of the teacher shows forth conspicuously, and we realize the truth of the fact that the personality of the teacher is more important than the subject taught. In the large city, where the supervisor must necessarily be but an occasional visitor in the schoolroom, the grade teacher has ample opportunity to exercise her own individuality, working out in her own way the suggestions given in the monthly teachers' meetings.

We try to make the drawing and industrial work mutually helpful. The seventh-grade children have found great pleasure in making basket designs for the fourth grade to use. The time for industrial work during the first term of the fourth year is spent in making a round mat of raffia and rattan using the "tied stitch." This mat is from four to six inches in diameter, the size depending upon the amount of work the child can complete in the allotted time. While doing this the stitch is learned, facility in handling the material is acquired, and a simple pattern is introduced. During the second term the mat repeated serves for the bottom of a basket, and only the turning up of the sides and adapting the pattern to the shape has to be conquered. As such little children cannot adapt a pattern with any degree of accuracy, it was necessary for the teacher to plan each basket. The children of the seventh grade were quite capable of working out many patterns to scale, and we now have on hand an abundance of good material. A burden has been lifted from the shoulders of the fourth-grade teachers and a friendly interest aroused among the children. The small rugs woven in the second grade have been sewed together by the older children to form large floor rugs of excellent design and color; and in many other ways the spirit of co-operation helps to make the work attractive. Our fifth and sixth grades are without hand-work at present, the wood-work having been dropped several years ago for lack of funds. We hope soon — very soon — to find something to fill this vacancy. In the seventh and eighth grades the bench-work and cooking have been reinstated.

One building in each of our four school districts is equipped with kitchen and shop, and the classes from other buildings come in turn. The work is at present optional, but the overflowing classes prove its popularity. Each shop has its special teacher; the supervisor of manual training directs the work of the grades as well as that of the four high schools.

In these high-school workshops such things happen as would make the "average citizen" marvel — beautiful chests and chairs, tables and tall clocks, and a hundred other things useful and ornamental.

Each completed object is the result of co-operation in the various departments. Designs are made in the drawing-room, wood-work done in the shop, and the article returned to the studio for decoration. Color schemes are most carefully selected from the large amount of suggestive material gathered by the teacher. Designs are made from the pupil's own drawings or adapted from reproductions of good work. All this requires an endless collecting of photographs and clippings and magazines, and eternal vigilance on the part of the special teachers. For it is their constant aim that the work, though sometimes imperfect, shall always tend toward the best.

This continued effort to lift the standard of appreciation in the child-world must surely bring forth fruit in the future; and perhaps we may some day see the hideous, overdecorated stuff which now fills many of our stores give place to simple, dignified things. The day may be long in coming, but the dawn seems already near when we look back a decade. "Artistic" used to be a synonym for "expensive," as only imported fabrics gave the refined color and good design which the cultivated taste demanded. Now, money value has little to do with the choice, for our own manufacturers, feeling the trend of the market, have given us many things almost, if not quite, equal to the products of the older civilization. May we not hope that the efforts of the public-school "art director" have to a small extent helped in this development? We plant the seed and water it with faith; it may grow and bear fruit, even though we be not there to see. But it rests with us to see that the seed sown is capable of producing good fruit. The responsibility seems very great when we think of the thousands of homes represented by the children under our care, and note how readily these same children receive an impression, and how exactly they reflect the ideals of the teacher.

On the other hand, should it not give us hope and courage for the future to know that the best representatives of art in all its phases are each year becoming more and more interested in the public-school problem, and realizing that through this very army of children we must conquer and make a place for ourselves among the artistic nations of the world? That much progress has already been made is evidenced in no way more than by the kind of hand-work which is being introduced everywhere. No more flimsy paper articles without use or beauty; no more exercises in sewing or wood-work merely for the sake of the exercise. The inevitable question of the child, "What can we do with it?"

may be answered in a way entirely satisfactory to his practical soul. Any number of "exercises" may be mastered while putting them to legitimate use.

That this substitution of individual work for class work greatly increases the number of details which must be attended to by the teacher is to be regretted, but the gain to the pupil is very great.

There are many other opportunities, besides the making of articles, where the teacher may influence the taste of the student, at least in our city. It is the custom of outgoing classes in the high schools, eighth grades, and sometimes in seventh, to place a memorial in the building which they are leaving. Many times this takes the form of a picture, but frequently other decorative objects are selected — tables, bookcases, and in several instances tall clocks. In each case a committee from the class — usually accompanied by the teacher — makes a tour of the shops, and they have an experience which cannot but influence their future purchases for home. The dealers are finding them excellent judges — they know the "Mission," "Colonial," or "Stickley" styles, and the difference between varnish and hand finish. Recently a speaker on art appreciation made the suggestion that ugly schoolrooms might be responsible for the bad boy, or at least beautiful surroundings might unconsciously influence him for good. The audience laughed, but may there not be a deep truth buried there? Scientists are telling us wonderful things of the effect of color, for instance, upon different temperaments. Certainly a room with softly tinted walls, with a few good pictures and well-selected articles of furniture, would be more restful and conducive to study than some overdecorated or utterly barren rooms which we can all recall.

"Simplicity" and "honesty" are the two watchwords which lead the way to all beauty. They should be our guides in all things, but in nothing more than in the choice of hand-work which we put into our public schools. A simple article, well constructed, well made by the child's own hands, will give him a respect for honest workmanship to be gained in no other way —a respect much needed in all climes, but nowhere more than in this country of ours, where machinery seems to be leaving the hand-worker far behind in the race.

Of course, it is understood that we do not expect to make artisans of all the school children, any more than we wish to make painters of them; but we do hope to help in the making of men and women who will appreciate the good things in the world about them — who will be able to discriminate between the good and bad, and in all ways lend their influence toward the uplifting of the world's standard.

M. EMMA ROBERTS.

DEPARTMENT OF DRAWING,
Minneapolis, Minn.

ART AND MANUAL TRAINING IN THE HIGH SCHOOL.

THE introduction of art and manual training into the high school is now an accomplished fact, and any school without both drawing and manual training is considered as one without a progressive tendency. The spirit of the age is one of progression, and whatever can be shown to be of advantage in the school system will readily find recognition. Possibly it may be a long time before a measure is adopted, but the very discussion of it is in itself a great benefit to the dissemination of knowledge concerning the subject.

What shall be introduced is still in many cases a matter of conjecture, and only by a careful study of existing conditions in the high school shall we be able to arrive at an approximate conclusion as to what is best.

The training of the powers of observation through the cultivation of the eye is of the utmost importance, from the standpoints of both utility and enjoyment. Drawing, in its various branches, is best calculated to promote this training, and we can hardly have too much of it. The correlation of studies at the present time makes it quite possible to introduce drawing in studies where once it would have seemed impracticable. The constant feeling of unrest in the mind of the American student makes it necessary for us to give more variety to our work than is needed for pupils of a more phlegmatic temperament, and the results from this have shown the benefit of such a course.

The study of the type-forms in their relations one to another is of the utmost importance for a groundwork upon which to base the future labors; but this type-study need not be made the cold, uninteresting subject which some still make it; for a subject which so lends itself to the creative and imaginative faculties as drawing may be made of great interest, and this will result in commendable work.

A subject which has not received its proper share of attention in high-school work is that of design; for the imagination is constantly exercised in this branch, and this work may also be made most advantageous in its correlation to other art work. The field for expression in this direction seems very large; the proper adaptation of ornament to its various uses opens up a vista which may be almost interminable. At the present time, when so much attention is given to craft work, it is a necessity to be able properly to adjust ornament and form, but many of our observations would lead us to believe that this is not studied as it should be. The proper attention to design would correct this. A great deal of work is now done in the various metals, which depends upon the design for its value, and frequently an otherwise attractive article is spoiled by a poor design. One who wishes to succeed in any sort of craft work must devote considerable attention to the proper disposition of ornament.

Color, too, is a most attractive, as well as necessary, department of drawing, which can be studied in so many and various ways. I find, however, that the general tendency in color-work is altogether too free, often resulting in a carelessness of execution which, except in the hands of an artist, is most injurious to good results. A free drawing need not be a careless one, but the average student in the high school does not make the proper distinction between sketchiness and laziness. The *care* bestowed in making a drawing is of itself educational, and it should receive due attention; not that a student should be required to do his work in a specified way, to the detriment of his individuality, but in whatever style he may choose to work, it must be carefully done. "The greatest art is to conceal art," and this can be acquired only by first learning how to be accurate. This accuracy will show just how far we may disclose our methods in the execution of a given work; and when we have acquired this knowledge, we shall know which parts require a sketchy appearance and which a finished one. In our color-work it makes little difference whether we use chalk, pastel, water color, etc.; for each has its advantages, and the study of color may be carried out in any medium that suits the teacher best. Imaginative color-work, except in the way of design, is not as good for the development of the color-sense as still-life, if care is taken in the correct study of values.

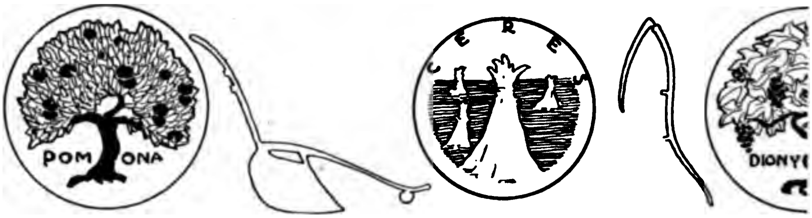
When we begin with values, we have opened a field of observation which is most interesting to the student, and one which constantly reveals to him the possibilities in the matter of observation. He begins to see what appears entirely new, and objects acquire additional interest in his eyes. The study of values should be carried on in different media, to get a correct perception of the many phases of the subject.

Throughout the entire training of the pupil, perspective should have been taught, but in a subtle way. It is not best, owing to the many impressions concerning the subject, to allow the pupil to have the idea that perspective is a difficult study. As a matter of fact, it is a simple one, when properly presented to the student. By the time the high school is reached, mechanical perspective should be introduced in correlation with constructive geometry. We are thus able to complete our knowledge of model-drawing, for, as an English writer has said, "it is impossible to draw models correctly without first having a knowledge of perspective, and equally impossible to have a correct knowledge of perspective without first understanding model drawing." Perspective is of much interest, and of course immensely important in all drawings of a pictorial nature, and should be given much more attention than has been devoted to it.

Whatever the teacher wishes to follow, whether it be a course of much freedom, or one of a more exact method, cultivation of *observation* must always dominate the instruction; for after all, observation is what we are aiming to cultivate. Facility in drawing is only a matter of practice.

FREDERICK NEWTON WILLIAMS.

THE UNIVERSITY HIGH SCHOOL,
Manual Training Department.



ART AT SCHOOL FESTIVALS.

In days past the festival has always been one of the chief factors in arousing the art impulse.

> It was not only that the festival gave new tasks to the constructive artist in the temporary apparatus and permanent monument, in the recording picture or glorifying statue, and in all the thousand forms of symbolic or decorative art invoked to aid; but it called the artist, so to say, into being, gave him breath and nurture, surrounded him with exquisite forms and glowing colors, and with everything that could quicken the activity of eye and hand. Under the forcing atmosphere of the festival the plant of art shot up apace.[1]

That the festival in school is a natural occasion for artistic activity seems therefore obvious. Here follows a statement of what has been done decoratively at two school festivals at the Ethical Culture School.

The Harvest Festival came at Thanksgiving time, and the exercises were given by the seventh grade. It consisted of three parts: (1) "The Call to the Harvest Feast" (pagan in character); (2) "Old English Harvest Home Celebration;" (3) "The Spirit of Harvest Home in America."

Some weeks beforehand, in considering the possibilities of decoration for the background of the stage, it was decided that the autumn deities might be suggested symbolically. The plan was discussed in the art lesson with the eighth grade. Careful consideration of the conditions to be met claimed first attention.

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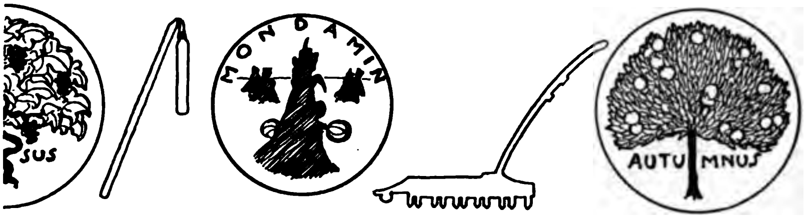
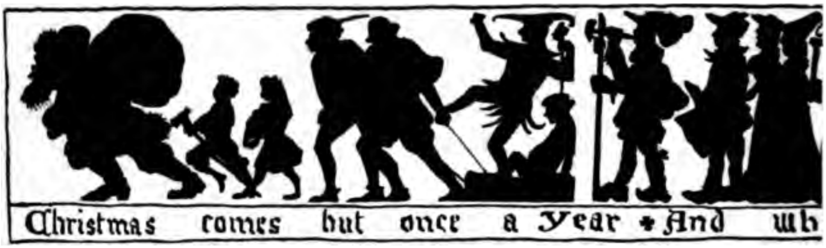
[1] G. Baldwin Brown, *The Fine Arts.*



The limited time and limited technical knowledge of the class were frankly recognized. The class was led to see the need of so planning the scheme that several could work, each on a separate part, and that those parts should fall into unity. A bold flat treatment, with simple masses of autumnal colors, seemed reasonable. The plan was sketched on the board. The aim of the teacher was so to guide the thinking of the pupils that they would naturally arrive at a reasonable, simple, and tasteful scheme. Having decided on the five circles and the symbols to be used, each pupil made a sketch of the one he chose. The best sketch of each symbol was selected, and the five pupils who had made the sketches worked out the final decorations. The size of each of the three larger circles was twenty-six inches in diameter; of the two smaller, twenty inches. They were spaced across the back of the stage as a frieze, against a dull green hanging. The material used for these decorations was strawboard, and the paint was opaque designers' color, applied in flat poster fashion. The tones used were green, red, yellow, purple, brown, and black for outlines. The implements were cut out of the strawboard by a sixth pupil, and left unpainted. Of course, this frieze was but one factor in the total effect of the stage during the festival. Actual sheaves of wheat, vegetables piled high on an altar (in the first scene), the autumnally colored costumes of the children — all lent their effect. These things were all considered in planning the color and treatment of the frieze which is here illustrated by an outline sketch.

Immediately after the Thanksgiving exercises, the festival committee turned attention to the Christmas program inspired by the suggestions of Mr. Chubb, a somewhat ambitious scheme


Christmas comes but once a year • And wh

was undertaken in the high-school art class. The thought suggested was a Christmas processional of the ages — a suggestion of the universality of the Christmas celebration. Egyptians, Romans, Druids, shepherds and sages, mediæval and modern peoples, were to appear. The recurring torch and candle, as well as the star of Bethlehem, were to symbolize the festival of light.

The boys and girls entered into the plan with great interest. As in the other case, the problem was carefully considered as a whole. It was decided to treat the figures in silhouette. A very rough sketch was presented to the class, to indicate very vaguely the relation of the groups of figures to each other. Then each pupil chose the section that appealed to him most strongly. The compositions were then worked out carefully by the individual pupils just one-third the size of the final decoration. When completed, these sketches were squared off, and thus drawn up full size. The decoration was thirty inches high. The paper used was of a grayish green, while the figures were in a dark purple-gray. The effect was lightened by the pale yellow of the torch, candle, and cross form that indicated the star, and still further enlivened by a bright red border line, and red initials in the quotation.

As will be seen from the illustration, not all of the original thought was carried out. One or two of the pupils failed to complete their sections; but altogether the result was decorative, and, considering the lack of technical knowledge of some of the pupils, it was as satisfactory as could reasonably be expected.

From these problems pupils learn to think of decorative art in

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a large way in relation to surroundings, and as embodying the spirit of an occasion. They also learn the proper subordination of the individual idea to the general effect. They see that individually their work attains success only as it takes its place in the whole scheme. This subordination of the individual to the whole does not, however, prevent each from exercising much freedom of choice and originality within his own portion of the design.

JAMES HALL.

THE ETHICAL CULTURE SCHOOLS,
New York City.

DRAWING AND PAINTING IN THE ELEMENTARY GRADES.

In addition to studying the relation of this work to other subjects in the school, it is the aim of the teacher of drawing and painting to find the best ways of developing technical skill and æsthetic power in this work. The age of the child, the motive for his work, his familiarity with the subject to be represented, his previous technical information, his habit of expressing himself in this manner, the pictures which he has to consult, the technical guidance from his teacher, and the appearance of his environment, are some of the influences affecting the choice of means for attaining the desired result.

Through the memory and imaginative drawings asked for, the teacher is able to correct certain errors which seem to be characteristic of the early work of all younger children and of some of the older. Many times the child must be closely questioned as to what he intended to show in his drawing, and he generally has a good explanation for his work. As he is guided by the teacher to notice what he can see from *one point of view,* his work changes its maplike character and becomes more and more the picture. Until he tried to make pictures there had been no reason for him carefully to study an object or a scene from one point of view. Through his attempts to draw he begins to realize this important limitation of this particular form of expression. As the artists say, he is " learning to see." It has been noted that many children show an unexpected advance in technical skill during the summer months, in which time they have done no regular drawing.

To the student of art history, and to those who have learned to value works of art for many different qualities, the work of the children often brings pleasure such as that given by early Italian paintings, and it seems but fair that the work of the children should be compared sympathetically with the work of those in the childhood of art. To help him to success in his chosen field is imperative.

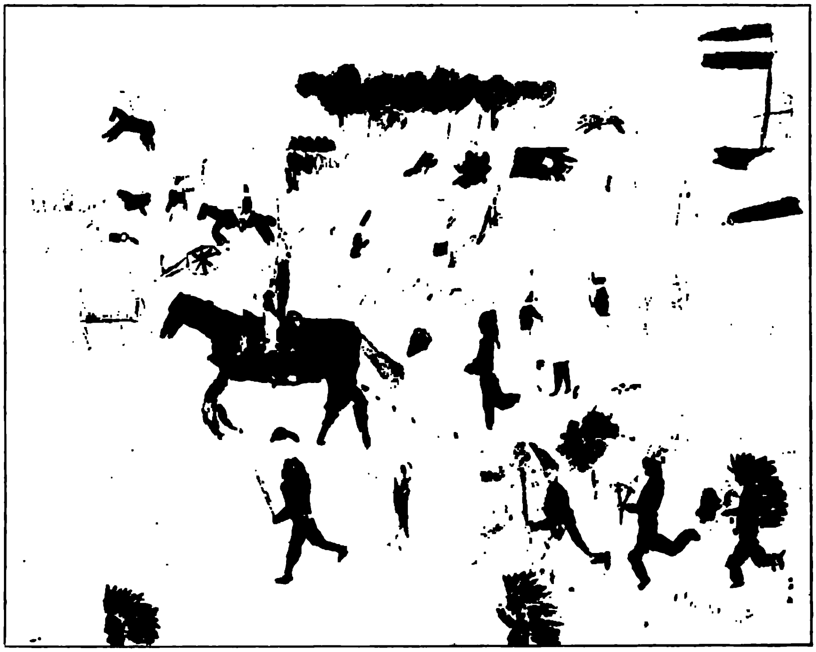
In the second grade the seven-year-old children have been studying the life of the wandering shepherds, and they were told of camels bringing to these people many things which they needed. They were reminded of the rugs in the tents and the beautiful colors in which the wool was dyed — and these materials the camels brought. They had been dyeing and knew about such necessary material. Then the children were asked to make pictures of the camels coming with their burdens. There were photographs and drawings of camels in the room, and after they started to draw they asked again and again to be allowed to look at the pictures of camels, because they wished to make their drawings better. The children were seeking information eagerly. The pictures were like magnets. The visible result of this close observation might be a rather shaky drawing, but because of that drawing the scrutiny of the photographs was intense. Of course, if it had been possible at the time, it would have been most interesting

A BOSTON TEA PARTY.—DOROTHY LLEWELYN.

for the children to see the live animal or the museum specimen, but after that the photograph was the best source of information. A large outline drawing of a camel was shown to them as being nearer to their stage in technique than the photograph. After this, when reference is made to the camels which come to the tent-dwellers from the outside world, these children will not have a vague impression of what is being told to them, as they have mental images as strong as their young eyes and devoted attention could make them. The dictionary itself, which we think of as having to do with words and explanations in words, confesses to a weakness in giving us pictures of animals. Just so the children come to understand that all their explanation in words is not complete without the picture.

THE BOSTON TEA PARTY.—EDWARD NATHAN.

These children had drawn sheep, so that this was an opportunity to call attention to proportions. The camel has long legs; the sheep has short legs. Direction of line was pointed out by



BRADDOCK'S DEFEAT.—WILLIAM VAN HOESEN.

The picture by William is considered by him as a study for a more finished picture, and is not yet completed. After drawing many of the figures, it became necessary for him to think of the landscape background, and he had to find the month in which it happened, as the time of year would make such a difference in the appearance of the landscape. It was found that it took place in July. For a child to remember the year, but not the season in which the event occurred, is to reveal that the thinking has not been sufficiently pictorial. William's picture is an example of allowing the child to make the most of his art feeling at the time. Having in mind what people in general would think of the work, the temptation to the teacher would be to stop the composition after the first horse was drawn, and direct the child to a careful study of the proportions and characteristic lines of a horse. This would have led him away from the thoughts of the historic scene. As it was, he thought of point after point of the event, feeling the scene dramatically. Before recording each position he must have first acted it out in his mind. Here there are links with the literary, the dramatic, the historic.

referring to the steep lines of the side view of a camel's back, contrasted with the more nearly level lines of the side view of the back of the sheep. With older children these could have been understood as proportions, and directions of lines related to imaginary horizontals and perpendiculars. The younger children were carrying the general shape in their minds, and then trying to express it by their drawings; and the simple references to long and short, steep and level, were the efforts made for their technical skill.

The work is not without its significance on æsthetic lines. It is perhaps not unreasonable to say that much of the development of æsthetic taste and appreciation of beauty is the result of the study of masterpieces. The first step is taken toward the study of masterpieces when there is felt a kinship in endeavor. Attempts at drawing and painting on the part of the children give them a sense of relationship to those who make pictures. They can take a few steps in analyzing a picture. Their tribute of attention to a picture has a value because of their knowledge of some of the problems involved.

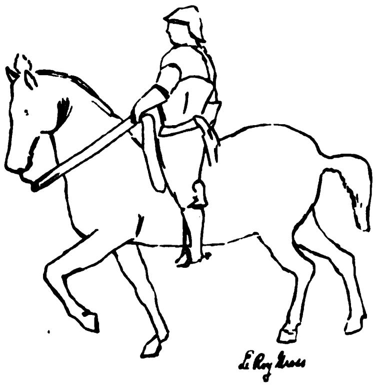
The constructive work being done by the children at the time is of interest to the teacher of drawing. A woman, telling of her experience as a young student in a school which was rich in equipment for doing work in the studio and workshop, said that just as she became interested in one mode of expression, she was told to leave it, and she hastened to another. She seemed to look back with no pleasure in her work, owing to the unpleasant spirit of "Move on." At the time these different occupations were taken up independently — for their own sake. Unity of subject in the midst of many modes of expression seems the way to preserve calm. Having a general subject, the children can approach it in these various ways, thus receiving new impressions. The pictorial record should come at the time of great interest in the subject; and to say that this is delayed until the special teacher is present, to give advice, is to confess to an unfortunate state of affairs. The children, through the work which they have with special instruction, should gain power to be used independently in such cases. The habit of making paintings and drawings is extremely important. The difference in the attitude of the children toward the work is evident in a class. Children who are gifted, who grasp methods quickly, but who have not had the constant practice of year after year of such work, fail, compared with children less gifted, but in training.

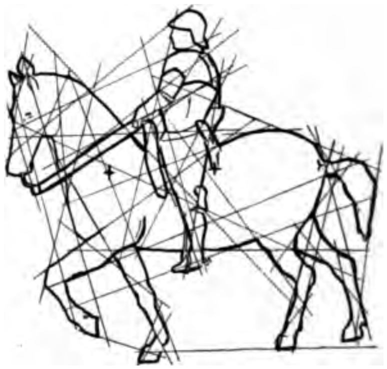
It is perhaps not generally understood that making a drawing calls into play very simple thinking. There are various ways of making a drawing, similar results being achieved by different means. The methods of various artists differ widely. However, an artist probably belongs to one of two classes. The artist of one class has great power of visualization. He can call up a shape as a whole or in parts. As he looks at the canvas or paper upon which he is to work, he knows in which place each part of the drawing is to take its place. An artist of the second class, having little ability to call up distinct mental pictures, prefers to do his drawing from the object or model. The children in their drawing and painting show characteristics strong enough to place them in one class or the other. Of course, in the case of the artists and the children there is sometimes a combination of these methods in the carrying out of a single drawing. Also, the same child at different ages may prefer one way or another of doing it. In the case in which power of visualization is not depended upon, very simple thinking is necessary during the making of a drawing. Strong will-power, determination, patience, and an understanding and application of certain simple principles of drawing, will bring success. Most persons at the close of a day spent in drawing from objects, providing the mind has devoted itself intensely to the drawing, not allowing the undercurrent of irrelevant thought to be too strong, will feel vacant-minded, and will recognize how machinelike has been the steady repetitions of making judgments as to proportion, direction of line, relation of point to point.

It is seldom that the public is permitted to see drawings and paintings in the course of construction. The artist is apt to be bored by the questions of those who have not studied the art, and he is irritated by the usual expectation that the picture should look well at each stage of its production. We are accustomed to see the scaffoldings about buildings in course of erection, and know something of the growth of the work. The painter conceals his picture from the public until he has removed the scaffolding.

It is well known how highly artists and students prize the studies and unfinished work left by great artists. These often reveal the reasons for the master's supremacy.

We have here a drawing by a boy of thirteen years of age of the eighth grade. The grade made several trips to the Art Institute to study and make sketches of objects in the collections, and this drawing of Verrocchio's masterpiece was made at one of those times, and took forty minutes. It was done in pencil and was inked later, that it might be printed. A tracing of it accompanies it, this tracing having lines drawn upon it to give information concerning some of the thoughts involved in its construction. It is in the nature of a thought-record. The crosses have to do with proportion. The length of the horse's head is taken as the unit of measurement. The crosses from left to right show the headlengths across the body in a horizontal line, beginning at the end of the nose. The crosses in the perpendicular line show the headlengths noted, for determining the height of the horse. The straight lines are those which determine the direction of lines. Each runs along part of a line of the drawing, and then, extending in both directions, *cuts through certain points* on other lines. Only part of the lines is given, but they suggest what was taking place in the boy's mind for those forty minutes. If an absolutely accurate drawing were made of the statue, each line of the drawing, if extended in both directions, would cut through exactly the same corresponding points that a ruler would appear to hit if





held up and allowed to run along the line and extending in both directions. It should be noted that a continuous line, when it changes its direction, must be treated as a new problem. Curved lines must depend upon visualization.

When the children become dissatisfied with their drawings based entirely upon visualization, the only hope for their work lies in their ability to grasp, and determination to carry out these principles. They must become skilful also in making judgments as to the value of the angle which the straight lines in the object form with an imaginary perpendicular or horizontal.

DRAWING FROM LIFE.

In regard to color, there is much in the thinking that becomes automatic. Most color which is seen does not exist separately in the color-box, and there must be a combination of colors made in order to represent it in the painting. There must first be synthesis of color; then, when a color is met which is recognized as being like the one produced by a certain combination of colors, the analysis will be correct in proportion to the accuracy of the memory of the synthesis. We see at this point why the act of combining colors on the palette comes more and more into the realm of the automatic. The brush of the artist goes from color to color, making a combination in response to a color seen, as the fingers of a musician seek the piano keys at the sight of the written music. As the painter studies his palette and its combinations, his ability to perceive color becomes stronger. At first it would seem as if this automatic response to color would simplify matters to such an extent that it could handle the entire problem of color. On the contrary, the painter sees new color until he feels that life is too short for its adequate recognition. It may be understood through this why painters feel that they must keep in practice in using color, just as the musician must keep up his technique. It is needless to say that there are some painters whose chief concern is in regard to local coloring, and who are content to stop when the obvious is expressed.

In considering the matter we find that the judgments to be made and recorded in a drawing are simple; they deal with new relations in each case. It involves each time simple but *new* thinking. Color is more fixed, and hence can be coped with, by thinking, which gradually takes its place in the regions of automatic response.

In the ever-growing conviction of the tremendous power of drawing and painting as a lever in education, there has been some neglect of their relation to æsthetic enjoyment. The groups of wax figures in the Field Museum, arranged as if engaged in various occupations, convey much information to us. Certainly they cannot be said to give rise to æsthetic enjoyment, as does the Verrocchio Colleoni. There is danger that in the hearty appreciation of its power in dealing with an immediate educational end the more distant goal, the development of æsthetic feeling, be ignored. One of the simplest ways of working toward the æsthetic end, at a time when the summing up of information seems the sole object of the drawing, is to ask the pupil to place his drawing or painting within a rectangle of his own drawing. By doing so, he has to consider space relations and has an opportunity to give expression to his æsthetic feeling.

There is work which demands a great amount of selection on the part of the creator, owing to the limitations inherent in the materials to be used. In the group of pictorial arts, a mural decoration, through having to keep its place as a part of the architecture, and the water-color prints, through the limitations of the wooden blocks, take rank in dignity above other, more realistic, work.

The artist who sums up many facts by a few modelings with his brush makes an appeal to the person viewing the picture to supply the facts not recorded, and thus understand the intention. It is really a tribute to the *connoisseur* when the artist presents for his inspection a work of art in which much is suggested rather than carried out, as it gives the art lover a share in the intellectual pleasure of creation, as he himself is thus called upon to complete the work of art by a reference to his own impressions of nature.

In view of these facts, when the æsthetic side of the child's development is to be considered, it seems good to encourage, so far as possible, the making of designs, and the *embodiment* of them in such products as textiles, pottery, metal-work, and woodwork.

To stimulate the perception of beauty, the children should be taken to art museums. They should observe, not merely pictures and statues, but examples of applied design. After seeing good examples of architecture, furniture, textiles, metal-work, and bookbinding, they should learn that the design in each case was probably first embodied in a drawing or piece of modeling. They will thus be more able to understand the importance of drawing and painting in its relation to the manipulated products of the world. They will perhaps gain some knowledge of what it may mean some day to them, if they are to have anything to do with making, or selling, or owning such constructive work of mankind. They will learn that drawing and painting have not alone to do with recording the appearance of what is already in the world, but is one of the first steps in expression of what is to come into the world through man's rearrangement of material. Having seen architects' plans, drawings for furniture, for machinery, they will be in possession of the fact that drawing and painting is a universal language, through which a man can make explanations to his fellow-men.

In the schoolroom care should be taken that the children be not weary of pictures. Let the illustrations and drawings be available, but not in evidence at times when their significance is gone. Pictures have not the advantages of covers, like books. To many sensitive minds the knowledge that there are so many pictures in the world is distressing. In the case of pictures, let one speak at a time. We should guard against permanent decorations in the room, or at least be extremely careful in their selection. Pictures with figures in them are apt to appear monotonous because of the figures' arrested action. Landscapes are less monotonous; and casts in the round are better still, owing to the different points of view possible because of the three dimensions. The changing light also helps to modify their appearance. A few beautiful designs rich in color, or well-selected textiles — even small scraps simply framed — furnish in a schoolroom much-needed color-food. Modern life in the city is so poor in color that we must have such things about to remind us that such hues exist. Familiarity with color thus gained helps in the recognition of it in nature.

I come now to the inevitable *need*. To meet this need, there would have to be such an expenditure of time and money; such co-operation of educators, scientists, artists, photographers, and publishers; such interest on the part of all our universities, that it would seem as if it would have to be handled by our government. Since educators have seen the wisdom of reinforcing written or oral description by a display of pictures on the subject, there have been constantly growing collections of pictures in schools in connection with the library. Under the most favorable circumstances we have a well-classified set of pictures, quickly available. Looking at a set of pictures bearing on one subject, we find large pictures, small pictures, photographs colored and uncolored, wood engravings, steel engravings, etchings, photo-engravings and pictures in half-tone. We find work by good artists, work by poor artists, pictures reproduced from oil paintings, water-colors, pen-and-ink and wash drawings. Some have descriptions, others none. The best has been done under the circumstances, and, compared to the rude woodcuts of the ancestral primer, the well-illustrated text-books and these mounted pictures are marvelous riches. However, there is the ideal. Let authorities on their various subjects, and the educators knowing the needs of the children, select typical photographs or drawings. Let these be redrawn by able artists, on a large scale. These pictures should be criticised by the authority and the educator, to see that the points have been shown in the drawing. Then the authority should write a brief description explaining the points, in such a way that it will be hard to misinterpret. Other countries have been amazed at the way in which we have allowed foreign nations to secure the masterpieces of our best artists; at the same time they have praised our leading magazines for the high standard of the art work there maintained. We have the artists trained to do this work; we have here publishers of great enterprise; we have educators appreciating the information that — after the real thing — only the picture can give. If the magazines would permit the work of Howard Pyle alone to be redrawn on a large scale, there would come into existence a fine group, upon our early history. It is needless to point out to teachers the various subjects which could thus be enriched. The whole class giving its attention to the large picture is much more desirable than passing about smaller pictures. For those whose days in school are unfortunately few, this gift of the highest authorities to the elementary school would be of great value. The pictures need not be limited to the strictly school subjects, but provide bypaths in art and science for the minds in school having a special bent. Vast museum space would have to be owned in order to contain the objects which can be shown upon a piece of paper. We need these windows into the world in our schoolroom. We should see to it that our schoolrooms are not prisons. Our universities can well spare time for this mission of giving some of their best to our children.

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THE SOCIAL NEED FOR ARTS AND CRAFTS IN EDUCATION.

THAT there is a social need for the arts and crafts in education is a foregone conclusion to one who works along decorative lines, especially in those forms of decoration which beautify the home. Since the first home was made in our country, whether an Indian tepee or a log hut, there has always been the desire to decorate the belongings of that abode in some manner. The endeavor to make that which is the dearest place on earth worthy of the name of home is one of the best traits of mankind. With the natural impulse in this direction, what could be a finer starting-point in the education of the individual than the occupations of the home? But what have we done, and what are the results?

We have been through two epochs in the development of the American home, and are now in a state of transition, which we believe will lead to better things.

1. After the hardships of pioneer life had passed, in the colonial days, our forefathers began furnishing comfortable homes, and there came across the sea many beautiful originals, which today we can study in old New England and in the South. Many of these pieces of furniture were the handwork of master-craftsmen in the Old World. Living was on a fine, simple plane, and the homes, in their classic lines, with the few treasures in old plate, furniture, and glass, had an air of refinement which charms to this day.

2. During the second epoch the original models were copied by cabinet-makers of the time, and gradual changes in form are noticed. As the demand increased, both quality and workmanship deteriorated, until we had a new furniture evolved, wholly American and not a trace of beauty in it. We opened the western forests, and black walnut became popular in furniture—a wood beautiful in itself, but so treated by color and mutilated in design that it was past recognition. From this we merged into the treat-

ment of oak, in antique and sixteenth-century finishes, worse in color and finish than all preceding it. By this steady output of bad things we are at last face to face with this fact that our homes have been furnished for us with the products from factories where honesty in construction and beauty of line had been sacrificed in the effort to make thousands of a salable type. We begin to see that, instead of the spirit of the home going forth and beautifying that which would return to the home, we have allowed the commercial thought to come in and form the objects of the home.

Many who desire better things have brought about a colonial revival. Have they gone back to the spirit of those days? or do they limit themselves to things colonial because they know that the old pieces in grandmother's garret were called fine by a connoisseur?

Others have hoped to avoid mistakes by following periods in decoration, but, in the general lack of knowledge and the difficulty in procuring true reproductions, Louis XV., Vernis Martin, Boulle, and straight-lined oak may be found in one room.

Another class, with money unlimited, have become collectors of everything: carved wells from Italy, mummies from Egypt, embroideries from Algiers, furniture from every land; and all mixed together in a house of composite architecture. What is the effect? Naturally one of confusion.

There is also the group of wholly modern spirits who, casting aside the past and its traditions, will have nothing that is not original, and by original they mean startling.

The commercial world, to meet these demands, has turned out by the thousands high-boys and low-boys, winged chairs and worktables, antique Italian marbles and Nouveau art creations. These have been well made or poorly made, according to the price. For those who demand colonial lines all must be in mahogany, until the inference abroad is that Americans use mahogany only in furniture.

The walls of our houses have been covered with pictures of all sizes, schools, and colors, until no space is left. If all of these were choice in subject or artistic in quality, there might be some excuse for this display. But walls crowded in this manner are rarely the collections of those who know and love the individual bits. When our people know what are some of the qualities necessary to the making of a great painting or etching, we shall have pictures on our walls selected with finer taste. We may not be able to own the originals, but out of the hundreds of reproductions we shall know how to select those that are choice. In the majority of cases this covering of pictures has been over a wall so aggressive in pattern or strong in color that each vied to outdo the other. In such houses you will find ornaments in as great profusion as are the pictures on the walls. A few good pieces stray into the mass of insignificant objects. Thus, in our effort to decorate, our houses are filled with unrelated materials. We have this helpful thought from Charles Wagner:

> Through a too common illusion, simplicity and beauty are considered as rivals. But simple is not synonymous with ugly, any more than sumptuous, stylish, and costly are synonymous with beautiful. . . . . Wealth coupled with bad taste sometimes makes us regret that so much money is in circulation to provoke the creation of such a prodigality of horrors. . . . . Rarely is it given us to contemplate in line, form, or color that simplicity allied to perfection which commands the eyes as evidence does the mind. We need to be rebaptized in the ideal purity of immortal beauty which puts its seal on the master-pieces; one shaft of its radiance is more than all our pompous exhibitions.

This overproduction of all things has had two effects: First, because of their cheapness, all could buy, and the general public accepted the things offered. If beauty of line or color or texture has never been brought to one; if honesty of construction has never been considered; if the right adaptation of form to material has passed unnoticed, what can be expected of both producer and purchaser? If better things are wanted by the masses — not necessarily more expensive, but something that will be fine and chaste in design — then the public must become appreciative of good things. The lack of appreciation has been most discouraging to the artisan, for ignorance has placed his products in competition with those of the machine. Discrimination does not come with money, but is acquired by association with beautiful objects and by close study of choice ones, whether furniture, ornaments, pictures, or buildings. What we need for the people is some means of general culture along art lines. When the great uplifting influence of quiet, refined surroundings is felt, then the demand for beauty will find the artisan who can express in material a beautiful thought. This does not mean that all are to become designers or specialists, but only to know beauty when it is seen; to ask of the commercial world fabrics good in design and color, china simple in form and less decorated, furniture fine in lines, and papers for our walls that are backgrounds for pictures and not a support to the wall. If we ask these qualities of the producer, we shall find that, instead of turning out commonplace objects, there will be a design well considered before the machine does its part. Because of the cost in hand-made articles, only the few can possess them. But it is not necessary that the man and the machine shall be each a counterpart of the other.

We have worked so long in a mechanical way that the old-time craftsman who could express himself freely in his material has almost passed away. The mechanic has almost forgotten that art exists for him, and the artist does not affiliate with the mechanic. But here and there one has been found in our midst who lives for the work of his hands, who finds life has a broader outlook because of the beauty which he can create for others. When a discriminating public recognizes the difference in quality between the labor of the mechanic and that of the artisan, then there will be a truer estimate placed upon the ability and value of the artisan. One great social gain, if all could have hand-work as a part of their education, would be the development of mutual respect. The visible expression of an idea in solid form is a more convincing test of equality in ability than the written word. The quality of the creative thought and the directness of the expression through the material are both there to be seen. No more wholesome experience, morally and socially, could come to a large proportion of our people than actually to make something with their hands.

William Morris, with his enthusiasm for the many forms of crafts and his efforts to bring them to a practical issue, certainly has a lessen of value for us. Those brave spirits, who taught and worked among their students for the spread of a better standard in the arts and crafts, have been pioneers in their line, but the leaven is beginning to work. Here and there groups of craftsmen are producing carefully wrought articles, and a market has been found for their things.

Our schools introduced manual training. At first it was merely a series of mechanical exercises, but within a few years a broader scope has been given to the work by its correlation with art and other studies. In the kindergarten came the natural expression in family needs for the hand-work; and if this passes on to the later work in education, we shall have by the combined efforts of our educators, in art and manual training, a public that will accept only those things which will be a credit to its city and its homes. Such training gives the individual a different basis from which to work and a more intelligent interest in the various occupations of life. With a sympathetic public, whose first consideration is not the commercial one, the profession of the artist or the trade of the artisan will be looked upon as a necessity and not as a luxury. Now that we begin to see wherein our life is incomplete, there is already one element of danger in our being too eager to take up the idea of decoration and lose the spirit of the movement, which is rather to simplify than to complicate conditions.

Home-making today is a more difficult problem in our country than it was fifty years ago. The home, with its ever-widening influence in the social and business world, gives the women of our land a field for labor which demands the best qualities of mind and heart trained in the finest manner. With such women actively interested, we shall have homes which are not furnished to follow a fad, but are the embodiment in every detail of a fine conception of life expressed in a harmonious manner.

Those who are in the commercial world look to those who are the educators to give to the young such broad training that they will look upon beauty of environment, whether in the tenement of the poor, in the public-school building, in city streets, in commercial products, or in their personal surroundings, as an essential part of right living.

One who is greatly interested in the spread of beauty says:

> God hath appointed to them [our students] the task of diffusing the beautiful in American society. . . . . Great is the influence of the merchants and the inventors and the editors. But who shall say that this new enthusiasm for the beautiful with which God has baptized American society is not to do quite as much for the influence of happiness and culture? . . . . The distribution of the beautiful in daily life is an incitement toward beautiful thoughts and a beautiful character, and a barrier against ugliness of mind and deformity of morals.

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THE EDUCATIONAL SIDE OF THE PARENTS' ASSOCIATION OF THE LABORATORY SCHOOL.

FROM A PARENT'S POINT OF VIEW.

THE Parents' Association of the Laboratory (Dewey) School differed from most other parents' associations in that the incentive for its organization as well as its development came almost entirely from the parents. The majority of parents' associations, although perhaps nominally formed by the parents, are in reality the result of the efforts of the teachers to bring the parents into closer relationship to the school and to each other, and are usually carried on largely by the teachers. This, at the outset, I believe, lessens the value of the work of a parents' association; the parents, merely invited guests, as it were, to the meetings of the association, become listeners rather than observers and co-workers. The work of the Parents' Association of the Laboratory School was, I believe, unique in this respect, even in this age of parents' associations.

During the first year of the school the parents were occasionally invited to come together to discuss subjects related to the home and the school, and at the beginning of the second year felt the need of formally organizing a parents' association. The income from the tuition of such a school was naturally far below the cost of maintaining it; there was need for the parents from the start to band themselves together for the support of the school which they so much desired for their children. Outside of this financial need, the main object of the association was an educational one, as its early name indicates, "The Elementary Education Club."

In such a school, where many of the ideas and methods were radically opposed to the old and familiar ones, the parents especially felt the need of becoming correctly acquainted with these ideas, of knowing the why and wherefore for each change, so as not only to keep in touch with the work of their own children, but to be able to correct misconceptions formed in regard to the school by the outside world. As a by-law itself stated: "The objects of this association are to promote in general the interests of elementary education by discussing theories and their practical applications, and especially to confer and co-operate in advancing the work of the Laboratory School of the University of Chicago."

Organized by the parents, and supported and maintained by the parents, it was truly a parents' association. The teachers generally were not members. While there was nothing in the by-law regarding membership to prevent a teacher from becoming a member, as it stated that "all parents and others interested in the work shall be eligible to membership," the teachers were more like honorary members, not being expected to pay the annual dues, but always being invited by card to each meeting and urged to take part in the discussions.

The program for the meetings was arranged by the executive committee, composed of the officers and the chairmen of the different committees. The subjects were presented either by outside specialists, whose opinions would be of especial value, by the teacher or teachers of the study under discussion, or by the parents themselves from the parents' point of view.

Parents who are interested in the mental welfare of their children are necessarily severe critics. Of course, from a prejudiced or narrow-minded parent this criticism would be an interference to progress, but from a liberal and unbiased parent kindly criticism, or suggestion rather, might become invaluable in the development of a system of education along psychological lines.

A teacher is with the child only a part of each day, and always when the child is under more restraint than during those hours in the home when the child feels full freedom and is wholly himself. The parent, through its effect on the child, can often see the influence of some method, when the teacher himself is oblivious to it. Thus a conference of parents and teachers for free discussion of methods and results is indispensable to the best working out of an educational system; and such conferences were the meetings of the Parents' Association of the Laboratory School—

conferences for the discussion of educational problems in which the parents were individually interested. The subjects of some of these discussions show the nature of the work done: "The Question of Reading;" "Why Children Should or Should Not Learn to Read at an Early Age;" Some Problems in Modern Education;" "The Physical Life of the Child;" "The Purpose of Outdoor Excursions;" "How to Simplify the Lives of the Children;" "The Value of the Study of Literature; etc.

The transfer of "the three R's" from a position of primary importance to a secondary one could not be made without many struggles; the familiar arguments must be gone over, the parents must be reconciled and educated to their lack of true values. Perhaps the most difficult of these struggles, and the one *en évidence* at nearly every meeting, concerned itself with the question of reading. To a parent who himself learned to read at five years of age it seemed unpardonable that his child had not mastered the art at eight or nine years. Such a parent, coming to a conference full of protest, would hear testimonies of other parents whose opinions he valued. This would make him stop to think and consider. He would hear one parent regret that his older boy had learned to read so young, as he was spending most of his time in reading books not worth the reading; while another parent would claim that the child who learned to read later understood so much better what he read than the ones who read younger; and finally a teacher would testify that in a particular group the children who read the least were by far the best thinkers with whom he had to work. Surely here was encouragement for the anxious parent. The problems of the other two R's were discussed in the same way, as well as the value to the child of the progressive method of history study and more hand-work.

In a word, the parents sought to know what the school was doing and why it was doing it. As the meetings of the association were held but once a month, to make the work more effective and intimate one of the standing committees was an educational one, the duty of which was "to direct the educational interests of the association, particularly in the study of the educational principles of the school, and of the ways in which the association can assist in carrying them out." To this committee the parents came with their criticisms and suggestions, and the committee, in quiet consultations with the teachers, was often able to correct a bad habit unconsciously formed in a teacher; or, by revealing a teacher's plan to the parent, remove his objections and reconcile him to the particular method in question.

Thus, from such counsels need was felt that the parents must in some way become better acquainted with the real purposes of the school, and, through the great kindness of Mr. Dewey, Mrs. Young, and Mr. Tufts, for three consecutive years a class was formed, open to all members of the association, in which the principles of the school were taught, and an opportunity was given in the discussions at the close of the class for the asking and answering of questions.

The main value, then, of the educational work of this Parents' Association was that of educating the parent in the principles of the school, thus bringing him necessarily into closer touch with the school, and, above all, by a greater sympathy between parents and teachers, making it possible to bring the school life of the child into the home, and the home life into the school, that the two might be welded into a compact and unified whole.

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BOOK REVIEWS.

The Tree Dwellers. By KATHARINE E. DOPP, the University of Chicago, Extension Department. Chicago: Rand, McNally & Co., 1903. Pp. 158.

THE best interpretation of this book must be read in the author's preface and the twenty-six pages of "Suggestions to Teachers" at the end of the book. These pages embody a message to the elementary teacher destined to be far-reaching in results. It is a message that *will be* heard and gradually heeded. The best time for all of us to hear and to heed is now. The means are at hand. *The Tree Dwellers* is not quite the first voicing of the author's message, but is, if we mistake not, the first of a *series* that is to be.

The Tree Dwellers is a study, or a series of studies, of the "long ago" turned into child's literature in a series of thirty-three stories, making 130 pages of reading matter. Its place as literature is with Waterloo's *Story of Ab,* Jack London's *The Call of the Wild,* Seton's *Lobo, Rag and Vixen,* and Kipling's *Jungle Books.* It is the story of the "wild" itself, peopled by wild men and wild animals. It is the story of man without fire, clothing, and shelter. It is not a *Robinson Crusoe's* make-believe primitive condition of man, but the real story of the real primitive man. Hence this book is no myth, no legend, no fable. Romance, maybe, but authentic. The author is a University of Chicago Ph.D., which means, according to Dr. Harper, that she has done original work.

These stories are written, so the author tells us, for the child six and one-half and seven years of age (we wonder if Dr. Dewey will permit it to be read till the next year). We know one boy, eight years old, who has read the book with absorbing interest. He had read it sooner, had it been published in season. This boy now understands the "call of the wild" as he could not before. He has lived the life with the "wild" for his environment in the *Tree Dwellers.*

Frederick Harrison, in *Meaning of History,* cites as the first teachers of the human race the men who first clothed themselves, provided shelter for their offspring, separated themselves from the herd, and ceased to be filthy. The teaching these men did touches our civilization of today at every point. But what concerns us here is that it was for the child the first shelter was provided, that it was for the child the first step toward civilization was taken. The link that binds the childhood of today with the age of primitive man need not be far to seek.

"The Industrial and Social History Series" by the author, Dr. Dopp, will tell in language that the children can read, when they have learned to read, by learning how to read, the story of primitive man. Why the series is "industrial" the author's message makes perfectly clear. Profane hands can only mar the message. One who has seen a child grow up in a sand pile will readily understand. The "Things to Do" in connection with each story in the *Tree Dwellers* amply justify this part of the title. The "social" has been hinted at. The child in reading the story lives the life. ALBERT R. SABIN.

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The Rational Elementary Arithmetic. By. H. H. BELFIELD AND SARAH C. BROOKS. Pp. viii, 268. *The Rational Grammar School Arthmetic.* By GEO. W. MYERS AND SARAH C. BROOKS. Pp. viii, 405. Chicago: Scott, Foresman & Co., 1903.

ONE must have a pretty good reason for putting a new arithmetic upon the already overcrowded text-book market. In this two-book series the authors have attempted to touch the real in the life of the pupil and so anticipate his needs, and to develop the subject in a progressive manner so as to adapt it to the child's unfolding powers. An effort has been made to put into effect the recommendations of the Committees of Ten and Fifteen, and to arrange the subject-matter in harmony with the latest and best theories.

The making of a helpful and usable text-book in number, preceding the grammar grades, is not an easy task. Of all the books of this character on the market, those that are really of some value are few in number. The first book of this series is a clear, straightforward development of the subject. The preface gives an intelligent understanding of the book, and the introduction clearly sets forth the essential points in the teaching of it. The idea that the child should do the thinking, form the combinations, work out the tables, construct the figures by means of concrete material, is of course the right one, but in ordinary practice the teacher does the most of it. The work in this book is arranged in such a way that the child can really do these things. There are other commendable features, such as drawing to scale and good drill exercises. In these days we pay so much attention to the development of a lesson that we are led to minimize the value of the drill. The fundamental combinations should be made automatic.

The second book of the series is very suggestive and thoughtful, being rich in materials and problems drawn from a wide area.

Arithmetic, constructive geometry, and algebra are correlated in a very satisfactory manner, and the book is adapted to the needs of pupils who expect to go through high school, as well as to those who are compelled to leave school at the end of the eighth year. It is intensely practical and deals with almost every problem in one's environment. While it is a radical departure from the ordinary grammar-school text, yet it is none the less workable. As in the first book, emphasis is put upon what the *pupil* can do in estimating and measuring magnitudes. Much of the material in the book has inherent interest and value, and is not used simply for the sake of illustration. There is no good reason why informal algebra should not be used to a greater extent in grammar-school arithmetic, and it is gratifying to note that algebra is employed advantageously here. The book has been written with a mathematical discrimination that is accurate, and with a knowledge of pedagogy that justly entitles the authors to the use of the word " rational."

The series is an excellent one and a real contribution to the literature of the subject.

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BOOKS RECEIVED.

Education as Adjustment: Educational Theory Viewed in the Light of Contemporary Thought. By M. V. O'Shea. With full Bibliography and Index. New York: Longmans, Green & Co., 1903. Pp. xiv, 317, crown 8vo. $1.50.

The purpose of this volume, as the title indicates, is to discuss fundamental problems of education in the light of contemporary scientific thought.

Everyday English. By Jean Sherwood Rankin. Boston and New York: Educational Publishing Co., 1903. Book I, "For Intermediate Grades;" pp. 240; $0.50. Book II, "For Grammar Grades; pp. 340; $0.60.

A text-book in language recognizing and founded upon the Herbartian doctrine of interest, providing material suitable for the child's apperception, and banishing from intermediate grades the valueless jugglery of a suppositious "grammar" superimposed upon English through false analogy with Latin syntax and inflection.

The Winnebagoes: County Superintendent's Report of the Forward Educational Movement in the Rural Schools of Winnebagoe County. By O. J. Kern. Rockford, Ill., 1903.

Improvement of teaching force, the library movement, indoor and outdoor art, school gardening, boys' and girls' clubs, agriculture, consolidation of schools in the county, are some of the phases dealt with.

Outlines of Greek History. By William C. Morey. With Maps and Illustrations. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 378, 12mo; cloth, $1.

The present volume is designed to form, with the same author's *Outlines of Roman History,* a complete elementary course in ancient history.

A New School Management. By Levi Seely. New York: Hinds & Noble, 1903. Pp. 329, 12mo; cloth. $1.25.

Gateway Series of English Texts. General Editor, Henry Van Dyke. New York, Cincinnati, and Chicago: American Book Co., 1903. 16mo; cloth. Each, $0.35.

Macaulay's Essay on Milton. Edited by Edward Leeds Gulick. With Portrait of Macaulay. Pp. 160.

Carlyle's Essay on Burns. Edited by Edward Mims. With Portrait of Carlyle. Pp. 160.

Shakespeare's Merchant of Venice. Edited by Felix E. Schelling. With Portrait of Shakespeare. Pp. 186.

These constitute the first three volumes issued in this new series, which will include all the college-entrance requirements in English.

Elementary Plane Geometry. By JAMES MCMAHON. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 368, 12mo; half-leather. $0.90.

This is the first volume to be published of the secondary-school books of the well-known "Modern (Cornell) Mathematical Series." It carries out the spirit of the suggestions made by the Committee on Secondary School Studies appointed by the National Educational Association.

Homeric Stories: For Young Readers. By FREDERIC ALDIN HALL. New York, Cincinnati, and Chicago; American Book Co., 1903. Pp. 200, 12mo, cloth. $0.40.

In this book the pure and highly imaginative tales of Homer are adapted for elementary reading and presented as a connected narrative. It is profusely illustrated, largely from the works of celebrated painters and sculptors. It is the most recent addition to the well-known series of "Eclectic School Readings," and is especially intended for use in the sixth and seventh grades.

Merchant of Venice. Edited by WILLIAM J. ROLFE. New Edition. With Illustrations. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 236, 16mo; cloth. $0.56.

Treasure Island. By ROBERT LOUIS STEVENSON. Edited for the "Canterbury Classics" by THEDA GILDEMEISTER. Illustrated by G. C. WIDNEY. Chicago and New York; Rand, McNally & Co., 1903. Pp. 328, 12mo; cloth. $0.40.

Liberal Christianity in the United States. By SAMUEL A. ELIOT. Boston: American Unitarian Association, 1903. Pp. 20.

Stories of the Ancient Greeks. By CHARLES D. SHAW. Boston and Chicago: Ginn & Co., 1903. Pp. 264, 12mo; cloth. $0.70. *net.*

This collection of stories of the ancient Greeks is intended for supplementary reading, and may be used profitably as early as the third year. It includes many of the charming tales of the Greek mythology retold in a manner suitable for young people. The second part of the volume deals more particularly with Greek history.

A First Book in Business Methods. By W. P. TELLER AND H. E. BROWN. Chicago and New York: Rand, McNally & Co., 1903. Pp. 272, 12mo; cloth. $0.75.

Money, Banking, and Finance. By ALBERT S. BOLLES. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 336, 12mo; cloth. $1.25.

Field and Laboratory Exercises in Physical Geography. By JAMES F. CHAMBERLAIN. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 128, small 4to; paper. $0.50.

This is a series of laboratory and field exercises designed to lead the pupil to interpret the geographical forms and processes about him, and to give him a practical knowledge of their principles. Each exercise is preceded by a list of necessary materials, which are easily obtainable. An important feature of the book is the plan for studying the geographical distribution of various phenomena, and plotting the data on outline maps of the United States and of the world which are inserted. The manual is adapted for use with any text-book on physical geography, and will form a valuable adjunct for practical work.

General Zoölogy — Practical, Systematic, and Comparative. By C. Wright Dodge. With Illustrations. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 512, 12mo; cloth. $1.80.

This book for high schools and for undergraduate work in colleges presents the established facts and principles of zoölogy clearly and in a manner somewhat different from that of other manuals.

Monsanto and Languellier's Practical Course in Spanish. Revised by Freeman M. Josselyn, Jr. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 398, 12mo; half-leather. $1.25.

Galdós's Doña Perfecta. Edited by Edwin Seelye Lewis. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 377, 12mo; cloth. $1.

Alarcon's El Niño de la Bola. Edited by Rudolph Schwill. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 278, 12mo; cloth. $0.90.

Fifty Fables by La Fontaine. Edited by Kenneth McKenzie. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 127, 12mo; cloth. $0.40.

Chateaubriand's Les Aventures du dernier Abencerage. Edited by James D. Bruner. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 96, 12mo; cloth. $0.30.

Merimée's Colomba. Edited by Hiram Parker Williamson. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 220, 12mo; cloth. $0.40.

German Composition. By B. Mack Dresden. New York, Cincinnati, and Chicago: American Book Co., 1903. Pp. 68, 12mo; cloth. $0.40.

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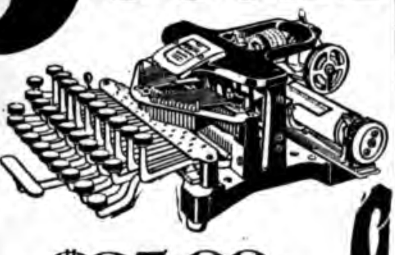

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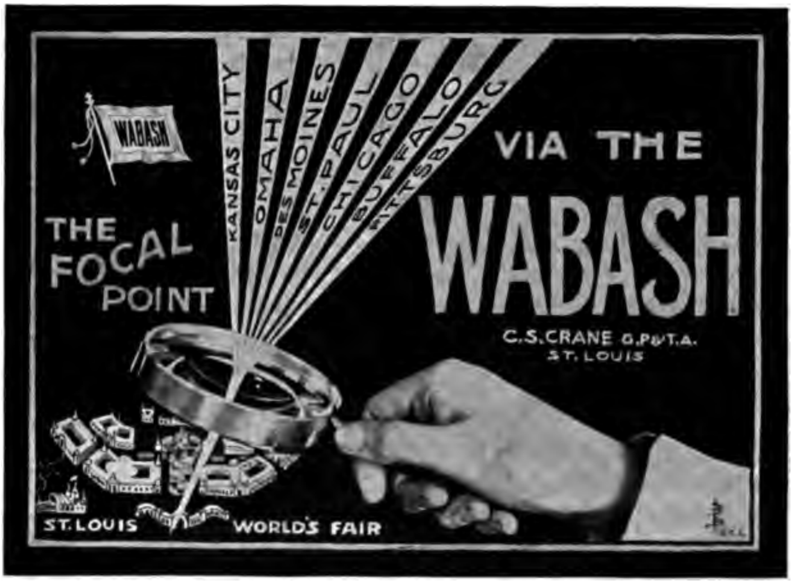

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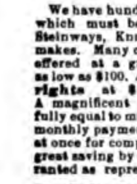

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The Elementary School Teacher

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The Elementary School Teacher

EDITED BY

The Faculty of the University of Chicago School of Education

The material in this number was arranged for and edited by Martha Fleming, Associate Professor of the Teaching of Speech, Oral Reading, and Dramatic Art

CONTENTS FOR APRIL, 1904

MUST IT BE A LOST ART? - - - - - - - - - - MARTHA FLEMING 541

THE DRAMATIC IN EDUCATION - - - - - - ANITA McCORMICK BLAINE 554

THE FUNCTION OF THE FESTIVAL IN SCHOOL LIFE - - PERCIVAL CHUBB 559

SOME PHASES OF DRAMATIC REPRESENTATION IN PRIMARY GRADES JENNIE HALL 566

PLAY OF ULYSSES - - - - - - - - - - FOURTH-GRADE CHILDREN 571

THE DRAMATIC SENSE, AN AID IN LEARNING A FOREIGN LANGUAGE ANNA TALEA SCHERZ 579

SCHAUSPIEL-REINEKE FUCHS - - - - - - - - - - - GRUPPE NEUN 582

DRAMATIC PLAY IN THE KINDERGARTEN - - - - - - BERTHA PAYNE 588

THE WOODMAN AND THE GOBLINS - - - - - - - - JOHN DUNCAN 594

THE WOODMAN AND THE GOBLINS - - - - - - - - - CHILDREN 598

CONCERNING DRAMA AND ORATORY IN THE SCHOOL PORTER LANDER MACCLINTOCK 601

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The Teaching of Literature in the Elementary School

By PORTER LANDER MAC CLINTOCK

TABLE OF CONTENTS

CHAPTER

I. *Introduction.*

II. *What we expect to do for the child in teaching him literature.*

III. *Kinds and aspects of literature serviceable in the elementary school.*

IV. *Story.*

V. *Types of stories.*
a) Nursery and Fairy Tales, their nature and function.

VI. *Types of stories.*
b) Myth and Legend.

VII. *Types of stories.*
c) Hero Stories.

VIII. *Types of Stories.*
d) Realistic Stories.

CHAPTER

IX. *Types of stories.*
e) Nature Stories and Animal Stories.

X. *Types of stories.*
f) Apologues, including Fables, Allegories, and other symbolistic stories.

XI. *Poetry.*

XII. *Drama.*

XIII. *The presentation of the literature.*

XIV. *The return from the child.*

XV. *Correlations of literature.*

XVI. *Reading for children other than literature, and literature out of school.*

XVII. *A tentative curriculum in literature, arranged to cover the time of the elementary school.*

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VOLUME IV NUMBER 8

THE ELEMENTARY SCHOOL TEACHER

APRIL, 1904

MUST IT BE A LOST ART?

OFTEN these days a protest is heard from the schools and from the homes: "The children cannot read." Even in the high school the teacher of literature echoes the same cry: "The boys and girls cannot read well enough to understand literature;" and we might perhaps venture the question: "Can the teachers read?" Although these protests cannot be taken at their face value, they suggest a misapprehension somewhere. They point either toward some failure in the teaching or to some difference of opinion as to the significance of the terms, and it may be that an attempt to define these terms will open up the subject for discussion. What do we mean by "reading;" by "reading aloud?" When do we expect the average child to read?

To know the words that meet the eye and to be able to speak them is neither reading nor reading aloud. It is to have a valuable tool of whose true use the possessor may know nothing. He may never learn the trick of using it. Reading is imaging, thinking, in response to the stimulus of the written or printed word; it presupposes a mass of experiences on a subject or on related subjects. It focuses all these, and in each person arouses emotions corresponding to the depth and wealth of his emotional nature, his humanity, and his sympathy for all living things; his perception of beauty, and his richness in that power of remaking all thought, imagery, and emotion into a new and marvelous world of his own which passeth beyond experience—his real world, one that endureth forever. Reading is then one of the most intense acts of the human mind. It is jealously individual, dependent upon the stage of development, and the original power and equipment of the reader; for the book gives to every man according to his measure.

Reading and reading aloud, although closely associated, are two entirely different acts, with two distinctly educational purposes. There is a difference in the thinking done in silent reading and in reading aloud; there is a difference in the motive. To read aloud is to read and at the same time to voice in speech, which is more subtle than song, the message received from the written or printed page. To read aloud is primarily a social act. Not often does one care to read aloud just to himself. The impulse to share with another something which moves one so deeply that it demands a listener is most natural, most human. Reading aloud is one among a number of tests of power to read. Colonel Parker once called oral reading the "lost art"—lost since the time when Homer and the bards recited their verses to those who cared and loved to listen. He had a vision of what it might mean to speak poetry with a clear perception of its meaning and emotional content, and a delicate sense of its rhythm; and he made a passionate demand for practice in this kind of reading for the children. "One good piece of literature always on hand for drill," he used to say, so great that it will not wear out, and of such infinite variety that it will not grow stale with use. It is one of our problems to find out why oral reading is a "lost art." Why out of a class of one hundred teachers can so few interpret a bit of literature? Why should they become wooden and inexpressive and self-conscious the moment a book is put into their hands for this purpose?

How much of this whole condition dates back to the beginnings in the use of books. What is the first association with words, with books? What motive has a child for the use of books; what motive for reading aloud? Is oral language a means of self-expression as well as of communication throughout the school? Is the school organized into a community which gives natural opportunities for the full and free expression of the children? Is the community interest a vital one with both teachers and pupils? Is self subordinated to the good of the whole? What is the general atmosphere of the school? Is it dominated by fear, cramped by conventionality, tradition, and the personality of the teacher; or is it inspired and uplifted by the spirit of freedom? What appeal is made through nature and literature to the imagination? These are some of the questions that make it impossible to enter upon the problem of oral reading as an educative process without considering the whole organization of the school.

We are not yet emancipated from our inherited idea that reading and books are the only education, and therefore the main business of the first years of school life. No doubt this was once an important function of the school, when the boy and girl had their manual training, their contact with material things, on the farm and in the shops or kitchens; when they handled the plow and the wagon; when cooking and weaving were common acquirements of the average girl; when both boys and girls learned to manage, to love, and to care for the farm animals; when a knowledge of the springtime and harvest, of the ways of trees and birds and flowers, was part of their everyday life — "knowledge never learned at school." Now, the great mass of children are remote from the means of this intimate knowledge. They have no background of experiences for reading, and to spend these early years of a child's life mastering the technique of reading, learning to recognize symbols for which he has no immediate use, is not only a criminal waste of his time, but cuts him off from that touch with the material world for which he has an instinctive craving, and which the modern manual training and domestic science aim to satisfy. It also cuts him off, in a large measure, from the poetry and literature in which his fancy loves to dwell and which is away beyond his reading possibilities. The silly, meaningless repetition of things unutterably dull, "that everybody knows," scraps with which most of the primers and first readers are filled, are a weariness to him — for the child is classic in his taste — and a snare and a delusion to the teacher. These teach the children little or nothing of reading; and the day will surely come when they will cumber the earth no more, and we shall have, in their stead, rhymes and poems, and delightful wild tales that make the heart beat and convert the vague ideas, longings, and passions of childhood into words that stimulate the desire for books. I have a happy memory of reading a story to a second-grade class one day, when a little girl eagerly asked: "Is that story in that book? Why, our teacher told it to us yesterday!" That child was making a new connection; it was dawning upon her that this book might be a desirable acquaintance. Thereupon we gathered together, and read another story, the children looking over my shoulder, and now and then reading a sentence when they thought they could. I helped them over every hard place, never allowing anything to interrupt the vivid imaging of the class or their happiness in the story.

A further substitute for these barren readers is original stories and poems constructed by the children and teacher out of their own mutual experiences. Here is one of a number of paragraphs by a second-grade teacher on a certain phase of hunter life which the children were studying:

BEDOUINS.

HOW THE COUNTRY LOOKS.

There is a country far away. The sun is bright there. The land is made of sand and gravel and stones. It is hot and dry. But in March there is rain. Then flowers grow. You can see very far. The country looks like a garden. You see a big purple place. It is purple flowers. You see a big red place. It is red tulips and poppies. They grow wild here. You see a low green place. Wild oats and rye and barley grow there. Pools of water shine in the sun. White flowers and purple irises grow in them. You see yellow places. They are wild marigolds. You see other yellow places. They are sand. You see gray places. They are stones and gravel. Little bushes grow there.

The rain stops. The pools dry up. The flowers and grass and bushes die. The country is all dry, hot sand and stones and gravel.

Into some of the new readers and books have been gathered much of the best literature—rhymes, poems, and legends. It requires now that the teacher shall know where to lay hands upon this material, and that she shall have that large experimental knowledge of literature herself, and that insight into child-nature and the laws of child-growth, which will enable her to select that which is best suited to her special children and their needs at the time.

The parents, because of their point of view, cultivate in the children a false sentiment about reading and a false estimate of its importance which even the wisest teaching cannot counteract. And, alas! we have neither the faith nor the courage to stand for our convictions, and we weakly succumb to the pressure from all sides. The result is that we make too much provision for teaching reading in the primary school — invent too many devices — and somehow the children get hold of our ideal. We center all the children's attention on the word, instead of letting it come naturally out of the work with real things and real experiences, out of the stories and poetry, and out of the demands made by the community life of the school. Learning to recognize and speak words is an integral part of the study of every subject and of the daily life of the children. The spoken word is essential to the children in acquiring ideas and expressing them. Large additions to this language can be made in the first years; at the same time every opportunity for putting the written or printed symbol of this language before the child can be embraced, emphasizing the content and not the form. Conditions which make knowledge of the symbol serviceable can be put about the child. Necessity awakes the desire to know words, and the child's will is then enlisted in mastering the difficulties. The symbol becomes a living thing, and the book, when its hour comes, does not mean a struggle with dry, meaningless signs, but another source of knowledge. There are children whose school experience has trained them to hate books; who are so conscious of the words and their inability to cope with them that the book suggests only a sodden routine, a weary, dreary monotony of uninteresting, straggling lines and angles; a dead wall, black and impassable, against which their enthusiasms beat themselves to death. Will an adequate motive for overcoming difficulties keep the children for the most part unconscious of them? Is an interest in words because of their use a natural interest? Can the interest in the content of the word be so strong that the symbol will be easily remembered? The point is that the process of learning to read be considered in the light of the habits formed by that process. The way of doing things, and the attitude of mind toward a thing once established by this way, are hard to change. Any method which results in absorption in mere words, in motiveless struggle with words, rivets the attention upon them and tends to establish a habit of being conscious of the form—the symbol; it cultivates a kind of fear which carries over and not only inhibits the impulse to read aloud, but represses and leaves its deadly blight upon the whole expressional life. We make too much of a business of teaching the mechanics of reading. It does seem as if the child himself might be trusted somewhat in this matter. He is in a world of words; they stare him in the face at every move, from every street car and every fence rail; and it is not so hard for him to reason out the necessity for learning to read. With adequate motive he will manage many of the conditions himself, if left free and unincumbered by grown-up devices.

With the majority of children real living interest in reading seems to develop rapidly in the fourth and fifth years of school. If up to this time the background has been well filled in by the constant functioning of words at the time the child felt the greatest pressure for their use, he has a key to the situation, and technical difficulties are mastered under the new impulse with marvelous ease and speed. The danger at this time is often too much reading. Many children, in their first real delight in helping themselves to the riches for which they have hitherto been dependent upon mother or teacher or friend, would rather read than eat or play. Here, without some guidance, there is danger of dissipation, a waste of time and emotion, mental and moral indigestion. Here, too, is a safe and a rare opportunity for the gradual development of definite motive in reading, as well as for making acquaintance with a body of good literature and establishing a permanent love for that which is noble and beautiful. Now, also, a good strong bit of drill is of infinite service in the mastery of words. I recall a fifth-year class studying Tennyson's *Revenge,* and so earnest and enthusiastic, so full of the meaning and spirit of the whole, were they that boys who had great difficulties with words to overcome, and were therefore shy and self-conscious, voluntarily rose to read aloud, stumbling sometimes over the words, to be sure, but carried over their difficulties by the burning desire to express what they saw and felt. In passing, I may add that the teacher read this poem to the children, and so presented it at first as an artistic unit. The child's motive for reading aloud should be constantly emphasized. He reads aloud to tell something to someone. That someone is right there to be spoken to, and must be made to hear and understand. If this once penetrates the consciousness, it has a wonderfully vivifying effect upon his reading. It clarifies his thought, and reacts to intensify his speech and modulate his voice. It is the surest means of making him forget himself in the thing he is doing. Impersonations and dramatic dialogue, which call for a revelation of character in voice, speech, and action, react upon thought and expression in much the same way.

Free intercourse in the schoolroom, exchange of ideas on subjects of common interest, when each feels that he personally is responsible for the conduct and welfare of the whole, establishes habits of self-expression, of unconsciousness of self, and paves the way for the more sustained and more complex self-expression demanded by reading aloud.

The teacher's attitude and personality, the way she does things, and her motive in doing, affect expression beyond calculation. She can, by very force of what she is, create an atmosphere in which initiative is impossible. She can make inhibition the habit, and repression the law, of the school, and keep the children in bondage to that law; or she can lift them into the light and law of liberty and of happiness in activity. She can systematically cultivate fear and self-consciousness and deceit; or she can inspire confidence and naturalness and genuineness. She can, through the silent working of her own motive and ideals, train into selfish love of effect and show, or into unselfish joy in giving pleasure to others.

Habits of self-expression can also be cultivated through story-telling, recitation of verse and the drama. In the "maddening maze" of new and wonderful things introduced into school which culminates in expression. The one who observes may copy, imitate, mimic the external form of tree, lake, landscape, picture, poem; but he cannot express, because these have not entered into his heart, stirred his emotions, stimulated his imagination, rendered up unto him their hidden meanings, the eternal realities of which they are the symbol. They have not so filled him with the joy of their beauty that his being overflows into original poetic expression. Why can the field excursion and the delight of the children in largeness, grandeur, and beauty not find some such expression? The natural primitive abandonment to that voice in nature which speaks to the imagination would climax in rhythmical, childlike cadences that deliver and free from the stress of emotion — broken, exclamatory utterances, full of repetition, but poetic in feeling and form; melodious with the songs of birds, and the running waters, and with the sounds of the waves; passionate with the angers and fears, or savage with the cruel tricky humor, of childhood; mysterious with the wonder and awe of the child-heart — things that run of themselves into poetic form. Primitive peoples as well as children delight in such expression of their joys and woes. Listen to this verse from an old Greenland song, found in *The Beginnings of Art,* which Grosse calls "a lyrical glorification of one of nature's spectacles — the hovering of the clouds around a mountain top":

> The great Koonak mountain in the south, over there —
> I see it;
> The great Koonak mountain in the south, over there —
> I am looking at it;
> The bright shining in the south, over there —
> I admire it;
> The other side of Koonak —
> It stretches out
> That which Koonak
> Seaward incloses.
> See how they [the clouds] in the south
> Move and change;
> See how in the south
> They beautify one another;
> While it [the mountain top] toward the sea
> Is veiled — by changing clouds — veiled toward the sea,
> Beautifying one another.

In the original a rhythmic refrain is attached to each verse.

Kenneth Grahme's boy in *The Golden Age* says, when let loose alone for a day with nature:

> The passion and call of the divine morning were high in my blood. Earth to earth! That was the frank note, the joyous summons of the day. I ran sideways, shouting; I dug my heels into the squelching soil; I splashed diamond showers from puddles with a stick; I hurled clods skyward at random, and presently I found myself singing. The words were mere nonsense — irresponsible babble; the tune was an improvisation, a weary, unrythmic[1] thing of rise and fall: and yet it seemed to me a genuine utterance, and just at that moment the one thing fitting and right and perfect.

"To a child," Mrs. McClintock says, "a rhyme that he has made is a jewel, a treasure. The mildest or crudest little figure of speech that he himself has devised is to him a genuine purple patch set in his little theme." The attempt to embody in æsthetic form his own feelings will surely open his heart and tune his ear to the beauty of language, charm of rhythm, and musical cadences that distinguish the poet's fuller expression of things that cannot be said in any other way.

The child has a feeling, too, for the magic of nature. He has the inner vision that transforms the common and the transient. He dwells in a land peopled with gods and heroes, giants and fairies, where everything, even his playthings, is alive or may come alive; myths, folk-lore, and legends of the old peoples, which have been the inspiration of the greatest poetry, give language, form, and color to his own imaginations. Bringing children's minds into close, simple touch with noble literature, that deals with elemental things in thought and action — for the great literature embodies the child's conception and is for all ages — is the vital thing. A taste is formed which forever excludes that which is ignoble; high ideals of life — the beauty of its relations, of the immortality of love, truth, honor — are suggested; the horizon is widened by sympathy, and the imagination so touched that it translates into terms of beauty all life, all love, and all death. It is the narrow, hard view which makes the acquiring of knowledge the whole of education; the frantic push and frenzy of the haste to be rich in facts, that crowds poetry out of the elementary school and the high school. And, alas! the fruit of the Tree of Knowledge, too often destroys the taste for the fruit of the Tree of Life. Does not this dryness and bareness persist, blinding the eyes, deafening the ears, deadening the heart, and leaving little to express that demands any depth or beauty of voice or speech?

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[1] It is a question whether or not the boy's song could have been unrythmical. under these circumstances.

In the high school, where the emotional life is boundless, dramatic literature, experienced in expression, may intelligently transform the emotions into beauty, and bring under the dominion of the intellect and will, through speech and voice, the most intense passions. Such expressions have at this stage, as Aristotle said, a "cleansing and purifying effect."

What service literature renders in education depends upon the literature chosen, the way of presenting it, and the outcome in expression. Large and rare literary culture and experience in life have been directed toward the selection of that best suited to the high-school students; but, except in a few instances, little of either has been directed toward training in the vocal interpretation of literature. Not long ago a young high-school girl answered the question, "Why do we not have training in reading aloud and in public speaking in the high school?" by saying: "The colleges do not require it for entrance, and we have no time for anything not required." Literature is full of life and full of echoes from outside the limited life each knows. The boy and girl at this time are susceptible to social influences. The social life is just coming strongly into consciousness, and literature is a key to its significance. To study literature is something more than talking about it — sitting outside of it, discussing and dissecting it, or speaking the words to give the intellectual significance of the text. It is to delight in the sound of it, to respond to its music, to think and feel with its heroes, to live, to suffer, to enjoy with them, and thus get an imaginative realization of the values and meanings of life, and the capacity for human sympathy, friendship, and love. The effort to express all this through the voice is most natural. It is another mode of study. One day I heard a boy, as he moved about his room, reciting, with fine appreciation of the rhythm and emotion, and a pretty clear conception of the meaning, a beautiful poem which was a part of his English work. He was "letting himself out" and enjoying it. "My!" said he, as he finished; "what would the teacher *do* if I read in class like that? Yet I should never know the meaning if I did not read it in that way." "How do you read in class?" I asked. "Oh! we do not read often, and when we do, we just say the words right along. I must write these verses tomorrow from memory." It is said that Maria Edgeworth once was reciting over and over the stanza beginning "The curfew tolls the knell of parting day," when her brother interrupted with: "What are you saying that over for? You don't know what it means." "Because I like the way it sounds," said she. "Well, you won't like it when you study it at school, and the teacher asks you, 'What's the curfew? What's a knell? What's parting day?'" Do not these little incidents reveal a common experience, and at the same time suggest a possibility of what might be done by the teacher of literature? Why not let the children get a bit of joy out of the literature? Why spoil a fine thing forever by so much attention to detail? Words have their only true meaning when incorporated in some literary form, and it is a fine opportunity to lay up a store. But why take them out of their setting and hold them up to be peeked at? Stress cannot be laid upon analysis, meaning of words, or forms; that sort of study comes later. Real interest will prompt the study of words necessary to the whole, and the children themselves will initiate such study. For the literature appeals as a whole. The boy has certain experiences which make it possible for him to take it in as an artistic unit, and any delay is deadly; it scatters attention, and dissipates the emotion which might have carried him over many of the difficulties of technique. It is fatal to the expression of what he does understand and feel, and which should have come when the emotion was at its height, reacting to clarify his images, to make them vivid and strong, and to develop freedom, naturalness, and responsiveness in voice and speech, and in the use of the body.

Reading aloud together brings teacher and pupils close to each other, and it would add much of life and motive to the work if the teacher himself were able to read aloud and interpret in the most effective way the literature studied. His voice, speech, accent, ennobled and purified by the beauty and richness of a large intellectual and deep, varied emotional life, would be the most potent stimulus to free, full, and beautiful expression. He creates, not a model for imitation, but an ideal and a public sentiment. This, too, carries over to haunt the ear, to echo in the soul, to color the life, and to determine in some measure the individual power of expression in later years. This influence, this inspiration, is strong even when the individual has only a vague memory of the words, and even of the literature. The effect is the unforgotten thing.

There need be little anxiety about the final result; for the natural outcome of all study is expression, and the tendency is to make the expression adequate to the thought and emotion. This tendency, constantly stimulated by the conditions of the school, will give to each individual a certain poise, simplicity, and directness in expression. And later on the desire to make expression adequate becomes an impelling motive for the study of the technique of voice and speech which will carry the pupil through many hours of technical drill. Giving every child this training will bring out the shy, self-distrusting child, and will mitigate the evils of self-conceit and self-consciousness that follow when the speaking and reading aloud are done by the few especially gifted ones in a class. Failure to do this daily bit of work with the whole class, postponing it until the precious opportunity for forming the habit of expression is past, is to atrophy through neglect certain parts of the brain, possibly to harden and narrow the moral character, weaken the emotional life, and destroy a taste that may be to the individual the source of great happiness and spiritual uplifting.

MARTHA FLEMING.

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THE DRAMATIC IN EDUCATION.[1]

I WILL declare at the outset that I should stand appalled at the idea of demonstrating to you what the dramatic has achieved in the matter of education, within the limits of fifteen minutes, and within the closer limit of my knowledge of the subject.

To espouse the cause of the drama as an educator, and so to prove this proposition that the decriers of the drama would never again decry, this, fortunately for the proposition, is not what I am attempting to do. Nor is it my province to roam through all the ages and phases of education to show you what a part in the progress of thought the drama has played, from the spontaneous representation of bird and beast, and the marvelous dramatic dances, among the savages, to the select audience sitting rapt to hear the last word from Ibsen or Maeterlinck.

I have to turn rather to you for my material; for it is to your imagination that I must appeal. I have only to suggest to you, What may the dramatic do in education? and you will fill in the details of the picture. I am here but to present the thought and turn your attention to the future rather than the past, and you will utter the prophecy. And herein lies my hope.

I am inquiring, not, What instruction does the drama contribute to those adults who choose to patronize it? but, What aid in the formation of character may the dramatic give to the children who are on their way to the adulthood and leadership of the world, whose education so greatly concerns us? And herein lies more pleasure. For in the company of little children, even while we ponder for their good, we lose the sense of calculation of profit — even of soul profit — weighed in nice measurements of knowledge or attainment.

So we return to our question: May the dramatic add something in the Elysium which childhood may be? May it enter into that sphere, not as the forbidden delight to be awaited with feverish impatience till later years, nor as the empty, or perhaps too full and mature, amusement that it too often is, but as a power to construct in the children stronger and better men and women, with clearer images and finer thoughts? I am assuming that when we ask if the drama may help education, the test is that it helps toward this goal; that it deepens experience and enriches the life leading up to maturity.

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[1] Read to The Fortnightly in Chicago, November, 1903.

Let us, for the sake of having the question clearly before us, take for granted that the possibilities have as yet never been touched. They may be seen sometimes, but rarely. Let us agree that the usual dramatic performance of the graduating class does not suggest the embodiment of a great force, that the usual matinée-going child does not reap great benefit from the habit, and that it is a different application of the art that we must seek if we would bring the drama as a power into the divine sphere of childhood.

And here we shall have to stop to inquire of the difference. We must see clearly what we seek ere we shall find it.

Let us consider first the dramatic element, as it may be exercised by the child.

Is the thing that we seek for external or internal purposes? Are we in our education trying to find a force that will enable our individual to strut successfully upon the boards of life and win applause? Or are we trying to endow him with a divine art composed of harmonies which will help him to act well his little part with grace and fitness? Are we looking for a force that will beautify our individual in form or in spirit? If we find the force that is potent, and if we are to apply it to the individual, we should beware that we mark well the distinction, lest, in our effort to improve him, we drag our individual out of the Elysium; for in the bright fields of childhood the forces must be of the spirit.

Here is the dividing of the ways. Perhaps this is the principle that must shut out the dramatic from education.

Let us scan the roads, and see if we may find a path for this art to our Elysium. On one side is a barred gate, and the bars of it are impassable; they are: the working for effect, the desire for applause (not the gratification at applause, but the working for it), the self-consciousness of action posed to produce an effect, and the like — an evil train, making for selfishness. By this way there is no passage there. It leads to a country remote from childhood; and if by chance a child stray there, he forgets his native place and loses the delights of it.

But may we not still find a path? The dramatic must be a show — need it be for a selfish effect? The radical and world-wide difference here seems to be in the subtle motive. And, as in all the steps of the evolution of the child, the teacher or parent is the high-priest at this altar of motive, and woe be to the world if he swing a censer with incense of flattery and not of devotion!

And here I wish I could be a leader, with a touch of divine inspiration, to guide a troupe of children through the mazes of the art and interpret to them the situations. We would turn from the barred gate, along a road leading to the happy fields of childhood, and prove, as we went, that springing from a motive different from that for self-effect may grow our dramatic force. Have you ever seen an exhibition of it — when perhaps the children had helped to make the play, illustrative of some period studied, or commemorating some festival? Have you ever been in such an audience, where the actors and the audience are one; when the thought to be given is clothed with all the art that each can command, to render it clear and beautiful for the listeners; when the whole is a symposium of beauties, imbued with the spirit of giving, not getting, and each actor is lost in this purpose? It is a sight worth seeing; or, rather, it is an experience worth feeling.

So we would enter the place where children grow, with our dramatic art. We look about and see it filled with learning and making and exercising — many doings. There we would introduce our acting. School should be a stage. We would find it already in and out of the kindergarten, and even beyond. The littlest children instinctively impersonate in their play. We would continue it in every year — almost in every day. Periods of history being studied should be lived in, and lived out, for the benefit of the others. Each should contribute out of his knowledge to the detail of the play. The children should be Greeks, Romans, and Middle Age barons and priests; they should write the Magna Charta and discover America, and construct our nation, daily. Motifs of all sorts should be shown in action, imaginative as well as historical, and done in an impromptu and spontaneous way, as well as worked out into a more studied correctness.

What would be the result? Vividness of impression. History would ever be to them their familiar field; people in distant ages would be people, not names with dates attached. The world's story would not simply be a stream of events, but might really be the living present to each individual that Emerson pictures it in his essay on history. The delights of imagination and construction and interpretation are untold. The value of these delights is unmeasured. The pure joy of action cannot be overestimated.

There is another result to dwell upon, perhaps more valuable even — the immense power of impressing actions by the action done — the moral force of impersonation. The heroic act conceived and executed is one's own. The ungenerous part played is vividly seen and detested by all. The gentleness and willingness of spirit that it requires to take the disagreeable part stamp the quality of the feeling about it. The gallery in a theater applauds the virtuous sentiment. How much more might the same gallery do, if in childhood, in school days, it had had frequent chance dramatically to *be* the hero or the faithful one!

A little scene comes to my mind, which I hesitate to portray, lest I should not convey the wonderful child-purity that was in it. Yet it so illustrates what I mean that I must try. It was on a Sunday. Some very little children were playing the story of the life of Christ. The story had been told them with especial thought of them. Some were very turbulent little boys. All were deeply absorbed. They separated into the different characters they chose, the others being the listening multitudes. There was nothing present but the most intense participation in the thought. The words that they spoke were their own impromptu interpretation of what Christ had said as he moved from scene to scene; and when one hesitated for his word, another leaned over and suggested it to him. When the leader in the play finished the story in few words, the spirit of Christ was surely in the children.

For the drama that children should see, what can we say? My theme has been that their doing the dramatic is far more important in their early years than their seeing it. But there seems also to be vast opportunity for teaching them through action portrayed for them. What so powerful as vivid impressions created by the drama? When we apply our test here, what shall stand? Where shall we find the dramatic food we wish to feed to young minds? When we have had the rare chance of taking them to see Jefferson in his plays, and the too rare chance of letting them see some of Shakespeare's plays, what shall we do more? Almost nothing is suited to them. Tragedies do not come within their comprehension; as for current comedies, Heaven forbid that they should! Light operas are heavy with vulgarity and dulness. Shall we take them to see the promiscuous plays as they are played — the plays that parody life and consider no joke successful without an innuendo? Not safely, if we would not hopelessly distort their vision before they can make their own calculations.

Pity the drama, that, with all of its great possibilities and realities, when we speak of it, we should conjure up such visions as the usual play! Pity humanity, that the drama should lay the responsibility of such upon its shoulders!

Would it not be a boon if some theater should now and then ignore what is thought to be public taste, and occasionally serve us confections we could give as treats to our children, not mixed with poisons through and through; if, for example, a point should be made of having on Saturdays plays that were chosen with school children in view? Or could not the school forces in Chicago set on foot a series of dramatic entertainments which should be profitable to the children of the city?

If the schools could enter into the field, giving the children a fine sense of the dramatic, how long would it take our so-called public taste to change? Not more than one generation! Speed the day!

ANITA McCORMICK BLAINE.

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THE FUNCTION OF THE FESTIVAL IN SCHOOL LIFE.

THE school festival — if we may use the term loosely — has a recognized place in our public schools. Washington's and Lincoln's birthdays, Arbor Day, Memorial Day, Thanksgiving, are widely commemorated — sometimes with gleams of festal cheer and ceremony, though, as a rule, rather soberly and primly, and often grudgingly by the teachers upon whom the burden of preparation falls. Is the labor, and the disturbance of regular school work which it often involves, worth while? It may be a politic expenditure of energy to provide occasional entertainments for the gaiety of the community; it may please the admiring parent or keep the surly taxpayer in good humor; but what of the cost in time and effort to the school? Are the returns adequate?

The answers to these questions will depend, first of all, upon the value we attach to festivals as institutions which lend desirable charm and significance to life; and, secondly, upon our estimate of their educational value in the hands of children. This is no fitting occasion to argue the first point fully. The writer's conviction is that the valuable part which the festival has played in the education of the race, it may still continue to play; and that, if it is worth while attempting to revive the arts and crafts, as so many are now stubbornly laboring to do, it is still more important to revive the great social and co-operative institution which has in the past quickened and developed these popular arts and crafts, as the festival undoubtedly has done. And surely it *is* worth while bringing back, through the Maypole, the Harvest Home and the Yule mumming, that childlike overflow of joy in the ceremony and ritual which greeted the days of great memory or the season's turning — seedtime and harvest, summer and winter — and lavished upon them such a wealth of happy inventiveness and creative activity.

If these old rites and ceremonies, and the quaint and lovely lore associated with them — the old round and carol, the old dance and rime, legend and story — are to be revived, it is mainly through the school that it must be done. The school is more and more becoming the repository of the fading culture of the past as an active agency in the present. This is because its task is that of leading the child up through the salient phases of development by which the race has reached its present outlook and power. Hitherto the emphasis in this task has fallen chiefly on the industrial, that is, the manual and scientific phases of human development; although the singing games, the nursery rhymes, the folklore and customs of childhood, are beginning to find a place in the primary school. On the whole, however, the artistic, and above all the literary heritage has yet to be gleaned and utilized. It is in the endeavor to lay hold upon the child as an artistic and literary personage, by repeating in his education the leading phases in the æsthetic and literary development of man, that the festival will receive its due recognition, and play the very important part which it is fitted to play in stimulating the historic imagination, the human sympathies, and the spontaneous creative energies of the child.

We plead, then, for the incorporation of the festival in the regular activities of the school, first of all on the general ground that it is important to keep alive in the child those feelings of joy and gratitude, of admiration and awe, of which the festival has at all times been the expression. It is important that the child should have an imaginative sense of the great rhythms of life and the mighty presence and potencies of Earth the mother, Earth the sustainer of his life, Earth the august home of his labors. We should preserve in him, if we can, something of the child-man's responsive glow in the presence of the changes of nature—Christmas and New Year, with their returning light and length of days; Candlemas, the old mid-winter feast; Easter, with its fresh glow of life in grass and tree; May Day, with its tribute to Flora; Thanksgiving and Harvest Home, with their grateful load of winter store. It is more important still that the child should recall continually on birthdays and death-days the great heroes and martyrs and sages to whom the race owes its priceless gifts of liberty and humanity; its inventors and voyagers and toilers, its singers and artists; as well as the great historical anniversaries and centennials which mark turning-points in man's advance along the centuries. It is by these commemorations as by nothing else that we can feed in the young those emotions of admiration, reverence, and love which are the fundamental forces in education as in life. It is thus that we can develop — unconsciously, of course — that underlying consciousness of kind, of human solidarity, of co-operative unity, which may offset the crude and narrow individualism that everywhere menaces us.

It may seem to be the very perversity of ingenuity which would add one jot or tittle to our school burdens in these days of overcrowded and often fad-ridden curricula. But although the festival may involve new labors, it does not add a new subject to the school program. It should fill the place and serve the purpose of the popular festival in co-ordinating and vitalizing activities already engaged in. This has been its chief value in the artistic and imaginative development of the race. The great popular festival of the past has been a means of co-ordinating, for the purpose of one great ceremonial celebration, the work of the artist and artisan, the actor, the dancer, and the singer, so as to produce an organic and massive unity of effect. By following this clue, we obtain a very genuine and natural correlation of school subjects and activities in the place of the very forced and artificial correlation which is often sought after in our schools.

So regarded and dealt with, the school festival, instead of involving disturbance of the school work, becomes an actual aid by imparting to it reality, meaning, and coherence. But this demands careful organization and planning on the part of the school. For years, the Ethical Culture School has been working at this problem; and its methods and results may be briefly set forth.

At the close of each school year it is decided what festivals are to be celebrated during the coming year; and each one of these is apportioned to a grade or grades according to possibilities of utilizing some part of their regular work in English, history, art, music, physical culture, manual work — in fact, almost every subject studied. Occasionally, some modification of the work is called for; but, as a rule, the festival adapts itself to the work rather than the converse. For there is no settled type of festival. Rather is variety sought for. The festival — say, Patriots' Day — that is in charge one year of the seventh grade, studying the revolutionary period of American history, may next year be intrusted to the sixth, studying the contest for supremacy between the English and the French;[1] Christmas or May Day may be celebrated, now by the fourth grade, now by the tenth. In one festival the tableau will predominate; in another, the story element; in another, the dramatic or the lyric. Sometimes the "book" is written entirely by the children; sometimes the material or the plan — say of an olden-time May Day or Harvest Home celebration — is supplied; sometimes a classic Play or masque — Shakespeare's *As You Like It,* or *Midsummer Night's Dream,* or Milton's *Comus,* or an adaptation from *Hiawatha* or *Christmas Carol,* or a miscellany of "Mother Goose" dramatizations by the youngest, will serve. The type is determined by a careful regard to the peculiar aptitudes, or the pressing needs, of the grades, a festival being occasionally assigned to a grade because it needs the special training and discipline which a selected piece of work will afford. And let it be added here that, more valuable often than any other result achieved, is the discipline in manners, in courtesy, in considerateness, and in the recognition of worth, which the "team-work" of the preparation calls for.

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[1] Such was the case this year, as the following program shows: *The Ethical Culture School, Patriot's Day Festival: Friday, February 19, 1904, 9 o'clock A. M.* — The festival is in charge of the sixth grade and has been developed as part of the work in English and history. The leading idea of the historical work is the meaning of the contest between New England and New France for supremacy in the New World; and the festival has served to bring to light the growth from the restricted patriotism of the English and French pioneer to the larger American patriotism which has joined together the peoples of all nations in the bonds of freedom and humanity. (1) "The Indian in the American Wilderness;" scene near an Iroquois camp: the sachem tells the story of the origin of the Iroquois Turtle Clan. (2) "The English in New England," illustrating the love of home and the love of mother-country; song, old English Ditty; scene, a Settler's clearing. (3) "The French in New France," in the service of France and the church; scene 1, the top of a ridge between two rivers; Champlain takes possession of New France; song, "Gregorian Chant," Ninety-fifth psalm; scene 2, an opening in the forest: the Jesuits on the way to Quebec to make their reports; scene 3, near a river: the *voyageurs* carry their furs to the trading post; songs, (*a*) "Canadian Paddling Song;" (*b*) "Petit Jean;" (*c*) "V'la l'bon Vent;" scene 4, clearing near a fort: after a battle; the French surrender to the English; the prophecy of future union. (4) "The American of Today;" scene, outside the St. Louis Exposition on the eve of completion: the prophecy fulfilled. Interspersed between the scenes will be patriotic songs by the entire school.

Gradually there has been accumulating a fund of commemmorative songs and material upon which the school draws for supplies year after year. It is an incalculable advantage, with each returning Christmas or May Day, to revive the old memories, to repeat the old lays, to rehearse the old ceremonies. It is by variety in the selection and arrangement of such time-honored pieces that the festive garland which adorns the special ceremony differs from year to year. Besides, the festival performance is sometimes composite, being contributed by almost every grade in the school. Thus, one Christmas festival had for its thread of connecting interest the story of the celebration of an old English Christmas at Coverley Hall. The high-school students who had been studying the *Sir Roger De Coverley* papers provided the text of the story — weaving in with it material drawn from the *Spectator,* the Christmas data in *Silas Marner, Christmas Carol, Bracebridge Hall,* and *Lorna Doone.* The illustrative material which realized for the eye the rite and pageant of which the story-tellers had told — the waits, the mummers, the boar's head procession, etc. — was contributed by the other grades, each one of which had made a short study of some one Christmas custom. Sometimes the primary grades co-operate, as was the case in a simple spring festival which was made up of an ingenious grouping of familiar springtide songs and poems so bound together as to constitute a species of masque-operetta. The outline of this program will be suggestive of this simplest and yet very charming type of festival:

Prolog: Life Indoors.— The Last of Winter Games; Wishing for Spring; Robin's Song; The Promise of Spring; First Signs — Pussy Willows.

March: Spring Asleep.— The Dance of the Brownies around the Figure of Slumbering Spring; The Spirits of Sleep; The Children's Song of Awakening; Jack Frost Interrupts; Spring Shows Signs of Life.

Out-of-Doors at Last.— The Games of Early Spring; The Wind's Interference.

April: Spring Astir.— The Children's Invitation to Spring; Spring's Response; Easter Carol and Rejoicing.

Garden Days.— Mistress Mary's Flowers; April Showers; Under the Umbrellas.

May: Spring Awake.— Spring Greets the May; May's Summons; The Crowning of May; May-Day Frolic and Dance.

From this simple program — which filled the hall for young and old alike with the sunshine and fragrance of an ideal May morn — we might pass on to others varying in complexity, until we reach the outdoor performance of *As You Like It* by the high school, given last May. The plan for this spring is to make of April a month of Shakespearean remembrances. The Shakespeare work of all the upper grades will focus in the presentation at the weekly assemblies of scenes from the plays studied, culminating in the performance of *A Midsummer Night's Dream* at the May festival. This series will mass the Shakespeare work so as to convey for the advanced students a revivified impression of all their Shakespearean studies, while it will open up to the intermediate and to the younger high school students a prospect of the Shakespearean world which they are to explore later with closer scrutiny.

Of course, there can be no adequate festival for the school as a whole without the general presence and contagious spread of the festive spirit. This is obtained by smaller, less formal and impromptu observances of the several grades in their class-rooms. But, apart from this, the school as a whole participates in the festival and expresses the festal spirit by means of interludes of song which it contributes, the idea being to catch and re-echo the spirit of each scene in the song which follows upon its conclusion. The Christmas festival, for example, overflows with Yuletide mirth in the carols and rounds and catches which thus punctuate the program.

Mr. Hall has intimated, in his article on "Art for School Festivals,"[2] the way in which the art element is incorporated, and made to subserve ends in art education which can be served in no other way. A similar statement might be made as to the way in which the work in music, oral English, calisthenics, and the manual arts (including the costuming) are integrated. But to deal with these and other points involved in the school festival would fill many more pages than are here at our disposal. The field is large, and is almost unoccupied. We are still in the first stages of our attempt to work out our problems. It must suffice to add that the keynote in all our undertakings is simplicity. Simple symbolism rather than detailed realism is employed. Large, simple effects are proper to childhood, and are really the best means of cultivating the imagination both in those who present the festival and those who behold it. But it is difficult to be simple and suggestive; and so easy to yield to the temptations of showiness.

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[2] ELEMENTARY SCHOOL TEACHER, March, 1904.

As to the way in which the fundamental ethical ideas which the festivals are intended to embody are brought home to the child, it may be remarked that the didacticism is indirect. The fundamental pieties of the home and the family, the city and the state, the nation and humanity, and that other "natural piety" of which Wordsworth sings, are nourished in the child by the indirect methods of art. The ground for the seeds to be sown in is often prepared, especially in the lower grades, by some preliminary explanations or discussions; but it is by the poetic, emotional appeal through the outward to the inward seeing eye and comprehending ear that the festivals carry their messages of family affection, of patriotism, of humanitarianism, of gratitude, and of joy to the unsuspecting hearts of the children.

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SOME PHASES OF DRAMATIC REPRESENTATION IN PRIMARY GRADES.

THE following play was written by a fourth-grade class at the close of a year's study of Greek life and story. The children had sufficiently studied Greek costume and houses and furniture, Greek temples and religion, to make them feel that this was a familiar people, and to make the movement of characters in stories easy to image in the correct setting. Moreover, the interest in Greek things was very strong. So when the children read Agnes Cooke's *Story of Ulysses* and wished to make a play from it, they had a considerable mass of material to use. That seems to me the best thing about their drama. A play is best, I think, when it is a blossoming (crude though it be) of knowledge and of strong interest, a result of work already done. Behind it should stand a worthy and much-loved subject, and a large stock of vivid images.

So in a way the whole year's work was a preparation for this play. But the definite making of it covered about two months. The children had given several informal plays during the year, and now they expressed a desire to give a more finished thing by saying that they wanted it to be long. We set about it with careful planning. First we chose parts of the story and played them extemporaneously, so deciding what incidents to put into the plot. After the skeleton was thus made, we again played the scenes for their own structure, interrupting, repeating, suggesting changes in dialogue and in acting. When a scene had reached a satisfactory form, each child wrote it down in a book made specially for the purpose. This writing was done from dictation by someone who remembered the speeches. In this way the first three scenes were made. But it was a very slow way, and the children were impatient to finish. For each of the later scenes two or three children composed independently and submitted their papers to the class. The pupils sometimes accepted an entire act as read, but usually changed it, striking out parts, filling in with new material, combining two written scenes, or perhaps rejecting the whole thing and beginning again. Sometimes the work lagged: no one could think of the right speech or the right situation. Then I was very free with suggestions. It seems to me a great mistake for a teacher to be afraid of giving too much help. It surely is as right for her to lift out of pitfalls, and to be an inspiration in dull moments, as to correct a child's English or to give the right spelling of a word. But, of course, her help should be a last resource, not delayed, however, until the children have reached the point of discouragement.

The making of this play seemed to me full of value. The first thing that it meant was analysis and criticism of the story. It became necessary to rethink the plot, to go back and reread forgotten parts, and to find answers to new questions aroused by new situations. Often this is the most valuable thing about a play. It demands detailed knowledge where an oral recitation or an ordinary paper will shirk responsibility and leave the subject inaccurate. Next, the choice of incidents immediately formed a rough dramatic ideal with which the plot of the story must be compared. The children realized that certain incidents that are possible in a story are impossible in a play. They cut short Ulysses's adventures, condensing them into a short speech. At first they attempted to follow the tale and bring Athena into Eumæus's house, and let her touch Ulysses's rags. He was to shake loose a pin and let the rags fall, disclosing his fine apparel worn below them. But this plan was not satisfactory. The verdict was that "it looked funny" and that "people would laugh." At last someone, to the general joy, suggested the expedient of having Athena beckon Ulysses out of the hut, when he was to slip off his disguise and come back in proper raiment. Again, although the children were very fond of the Polyphemus story, they cut it out from the play entirely. Their reasons were that there was nobody big enough to be Polyphemus, and that he could not crush men and eat them on the stage; and that, besides, the kindergarten children would not like to see men killed—"they might cry." These same pupils, in writing a Galahad play the year before, had wanted a tin cup to slide down a string to represent the Holy Grail. Thus there had grown an ideal of a play and a beginning of dramatic analysis.

I have already described the process of making the dialogue. This writing and criticising and rewriting did much for the children's appreciation of literary quality, and for their own correctness of style. In the song of Demodocus they tried rhythm. This was to them a source of much pride and delight. For a time their ears were open for rhythm everywhere, even the chance rhythm of sentences, and there were many attempts to make it. In the first scene is an evident attempt to imitate certain phrases of Tennyson's "Lotus-Eaters," which I read to the class and which they liked very much. There grew to be frequent remarks upon the beauty or strangeness or unpleasing quality of expressions met in reading. Some pupils were prone to adorn the dialogue with modern slang, but not once was this allowed by the other children. "A Greek wouldn't say that" was enough to ostracize an expression. At first there was a desire to employ solemn discourse, because it "sounded better;" but discouragement at not being able to handle it easily and at forgetting it occasionally soon banished that. But the most noticeable result of the work was that the children for that time spoke and composed in terse, well-formed sentences rather than in their usual rambling, incomplete phrases. Several things contributed to this result — consciousness of the criticism of the audience, desire to produce something worthy to be heard, a real feeling of fitness of form to matter, vivid imaging, and definite thinking.

The rehearsing of the play had problems and values of its own. Voices were high-pitched; enunciation was indistinct; the spoken dialogue lacked significance and emotion. But it is wonderful to see what earnestness a play will engender. One of the actors had a slight speech-defect. He was glad to undertake special drill lessons, and he made the most thoughtful efforts to speak plainly. Another boy, who was always full of unhappy self-consciousness, developed on the day of the play a firm carriage and a self-possessed attitude of mind. Such results are due, I think, to the repeated reminding that the child is saying something *to* somebody, and that that somebody is very anxious to hear. It is due partly, also, to the feeling of dignity imparted by impersonating an admired character. Intelligent rendering of the lines grows, of course, through vivid imaging of the circumstances of the speech. Continually being forced to image the situation, to realize the natural emotions, mentally to put one's self into the place of the character, and to fill in details of action and of picture belonging to the original scene—these are the things that produce good acting. The teacher's part is not to show how to act, but to help the child vividly to image the situation. In the instance of this play the children learned the dialogue as they had written it. I tried to encourage them not to adhere to the written form, but they seemed to think that this was their best work, carefully thought out, and they preferred to undertake the task of learning it. Usually, set speeches interfere with the freedom and convincingness of the play, and it is to be advised that it shall have, as much as possible, an extemporaneous character. The best plays are those that change at every rehearsal; for this means continued mental action of an intense, creative sort. Better, indeed, a botched speech than that a child should lose the joy and the habit of creating.

This play of Ulysses was carefully costumed. But I should think it a great pity if children should come to think costume necessary to a play. Nothing must spoil the informality and flexibility of the thing. And there are two other points to keep in mind regarding costume. The purpose of it is to help audience and actors more quickly and more truly to image the story. If, then, it is not historically correct, if it is ugly, if the players are new to it and so have attention distracted from play to dress, if it overawes the actors or the beholders by great gorgeousness, it defeats its own end. Often during the year these fourth-grade children had worn these same clothes, until they had come to feel at ease in them. They felt, too, some of the beauty of Greek life, and we constantly endeavored to make the stage-pictures pleasing. Our scenery and properties were of the simplest.

Act I — Flowers scattered about for lotus.

Act II — Kindergarten table, camp stools, baskets of bread and fruit, red bowls (loom imaginary).

Act III — Greek garments spread on floor.

Act IV — Armchairs for thrones, kindergarten table, stools, baskets of bread and fruit, red bowls.

Act V — Two or three camp stools, sandal for Eumæus to mend.

Acts VI and VII — Table, stools, baskets, bowls, brass basin, large bow and arrows, wooden sword.

Acts VIII and IX — No scenery or accessories.

While more numerous properties and painted scenery would have pleased the children, I liked the bareness of the staging. For one thing, the fewer the properties, the less the difficulty and commotion in shifting scenes, and the less the danger of perpetrating ugliness. A bare stage is more beautiful and more convincing as a Greek house than ill-painted and shaking paper walls and columns. But, more than that, the beauty of a children's play is simplicity. The children's own joy and their natural habits speaking through everything make the real charm for the beholders and constitute the value to the actors themselves. Overtraining, overdressing, over-elaboration of plot or of dialogue make the play incongruous, ill fitting the naturally crude actors. Such plays are likely to educate in the children, too, an unfortunate sophistication, to spoil the simple honesty of childhood.

I believe that one play will accomplish more toward founding good habits of speaking and of writing than a month's ordinary work. The child is intensely enjoying himself, and he is working under a high pressure of motive. But, of course, one swallow does not make a summer. A second and third play must enforce the habits begun by the first. Yet I think that it is possible to overdo dramatic representation. The entertaining quality of the play may tend to disparage other kinds of oral expression among both actors and auditors. Love of that form may even lead to children's attempting to fit to it themes quite inappropriate to such reproduction. The ideal themes for children's plays as for real drama deal with characters clearcut and interesting, at a time in their lives when events of an unusual sort are happening; and those events must be seen at their climax. Let the play be saved for such themes, and let just as much care be spent in elaborating different subjects through other literary forms—exposition, story, description.

JENNIE HALL.

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PLAY OF ULYSSES.

CHARACTERS.

ULYSSES; PENELOPE; TELEMACHUS; EUMÆUS; KING; QUEEN; MAIDENS; MEN; NATIVES; CIRCE AND HER MAIDENS; NAUSICAÄ; EURYCLEIA; DEMODOCUS; FIVE SUITORS.

ACT I.

[Land of the Lotus-Eaters. Lotus-eaters lying on the ground.]

MEN *(coming in)*. What country is this?

NATIVES. This is the land of the lotus flower by the Nile.

MEN. What flower is that you are eating?

NATIVES. This is the lotus flower. Come and taste it. *(Men taste the flower.)*

MEN. It is sweet. Where do you get this flower?

NATIVES. It blooms on the river banks and under the trees, and in patches everywhere. We only reach out and pick it.

MEN. Oh, how nice it is to stay here! It is better than to be tossed on the angry waves of the sea. La, La, La! *(They doze. Ulysses comes in.)*

ULYSSES. What is this? What are you doing? Get up, you lazy fellows! Men, come and help me get them away! *(Men drag them out. Ulysses shakes his fist at the natives.)*

SHOUTS COMING FROM THE SHORE. Tie the men under the rowers' benches. Push the boats off! To the oars!

[Curtain.]

ACT II.

CIRCE'S PALACE.

[Circe working at her loom.]

CIRCE. Tra, la, la.

MEN *(calling from door)*. What place is this? Inside there! Let us in.

CIRCE. Strangers! Welcome to this land of mine! It has been a long time since anybody has been here. Come in and feast! Be seated! *(Men sit and eat.)*

FIRST MAN. Give me that milk! Quick, I say!

SECOND MAN. No, get some for yourself! *(Milk tips over and spills on floor.)*

THIRD MAN. I wonder what Ulysses is doing now.

FOURTH MAN. Half-starved down on the shore, I suppose, eating clams, and wishing for a dinner like this.

CIRCE. Are you the men of Ulysses?

ALL. Yes, Yes!

CIRCE. Did you have many great adventures?

FIFTH MAN. Yes, we blinded the giant Polyphemus, and we burned Troy, and we met the lotus-eaters, and we fought with the man-eaters.

CIRCE. Tell me about them.

SIXTH MAN. Oh, we have not time now. We must eat.

CIRCE. Off to the sties with you! You are not fit to be men, but pigs. *(She touches them, and they run off to the sties grunting. Circe laughs.)* Ha, Ha, Ha! I will get Ulysses, too. Hark, here he comes now.

ULYSSES *(from outside)*. Let me in.

CIRCE. Welcome, friend! Come in and sit down! You look as though you were tired and hungry. Take some wine to cool you! *(They sit and eat.)*

ULYSSES. Have you seen some men come by here?

CIRCE. Your men are in the sties. You belong there, too. Off with you! *(She touches him. He does not change. He leaps up and draws his sword.)*

ULYSSES. You wicked sorceress, you have seen my men! Change them back to life again, or you shall die!

CIRCE. Spare me, Ulysses, and I will do anything for you!

ULYSSES. Will you promise not to kill us and not to change us into any sort of animals?

CIRCE. Yes, yes, I will promise! *(Circe goes out. When she returns she brings back Ulysses's men.)*

MEN. Ulysses, Ulysses!

[*Curtain.*]

ACT III.

LAND OF PHÆACIANS.

[*Clothes lying on the shore. Maidens playing.*]

NAUSICAÄ. I feel a little cold from our play in the water. Let us have a game of ball.

MAIDENS. Yes, yes, a game of ball!

FIRST MAID. Throw the ball to me!

SECOND MAID. Now to me!

NAUSICAÄ. Oh, it almost hit me!

THIRD MAID. There it goes into the river.

ALL. Oh! Oh! Oh! Who is that? Who is that?

FIRST MAID. Let us run and hide. *(They run away. Nausicaä stops and comes back.)*

ULYSSES *(coming in with ball)*. Come back! I will do you no harm. I have brought you your ball.

NAUSICAÄ. Where are you from?

ULYSSES. I am a shipwrecked sailor washed on shore last night.

NAUSICAÄ. Maidens, come back! he is no enemy. *(Maidens come back.)* Here are some clothes. The sea has spoiled yours.

ULYSSES. Thank you! I will go and put them on. *(Ulysses goes away. The maidens continue their game.)*

NAUSICAÄ. Perhaps he is a warrior from Troy.

FIRST MAID. He does not look like a common man.

SECOND MAID. He seems to have strong arms.

THIRD MAID. Throw the ball to me!

NAUSICAÄ. He must be a hero to have lived through that storm last night.

FOURTH MAID. He was kind to get our ball from the river. *(Ulysses comes back.)*

NAUSICAÄ. Won't you come and play ball with us?

MAIDENS. Yes, yes, come and play with us!

ULYSSES. I will try, but I am very stiff from being in the water so long. *(They all play ball.)*

NAUSICAÄ. It is growing cool and late. Let us go home! Will you come with us stranger?

[*Curtain.*]

ACT IV.

IN THE KING'S PALACE.

[*King, Queen, Nausicaä, and Maidens talking together. Ulysses comes in, and stops to look; then runs and kneels before Queen.*]

ULYSSES. May I stay in your palace for a little while? I am a shipwrecked sailor, and my comrades were all drowned, and I was left alone. Then I was washed upon Calypso's Island. There I sat on the shore and watched for the white sails of a ship; but none ever came. I waited on that island for seven years. In the eighth year Calypso told me I might go. She brought me tools and led me to the forest. There I built a raft. Then I sailed out into the sea to go home. But a terrible storm overtook me and dashed my raft to pieces and washed me upon your shore last night.

KING. You have had as many adventures as the great Ulysses.

QUEEN. Let us have a feast in his honor. Maidens, prepare the feast. *(Ulysses and King walk about and talk. Maidens work.)*

FIRST MAIDEN. Queen, the feast is ready! *(All sit and eat, laughing and talking.)*

KING. Demodocus, sing of Troy and of the great Ulysses! Perhaps the stranger has never heard of them.

DEMODOCUS *(Takes lyre and sings).*

Ulysses the brave! Ulysses the true!
He conquered the land of Troy and burned
It to the ground. Ulysses the brave!
Achilles was shot; the Trojans rejoiced

And thought they could win, but the Greek still had him
Ulysses the brave! Ulysses the true!
He built them the horse of wood. There they hid.
The Trojans came out and took the horse in.
The horse hid the Greeks: the Greeks conquered Troy.

(Ulysses weeps and puts his mantle over his face. All are silent.)

KING. Why do you weep? Are you one of Ulysses's men?

ULYSSES. I am Ulysses! After Troy had fallen, we set out for home. The first days were clear. Then a storm came up. When the storm had passed over, we saw a strange shore in the distance. We had no food. So we sailed to this land and asked the people of a little city for food. They refused and fought with us and drove us back to our ships. Away we went again, hungry and tired. After many days we came to the lotus-eaters. If we had stayed and eaten the flower, we should have dreamed our time away. So off we went. Then we came to Circe's Island, and went down into the underworld; and after that we went through the dangerous channel, and we met the sirens. And we had many other hard adventures, until at last I was shipwrecked on Calypso's Island; and from there I came here.

KING. You surely have had many adventures, and if you like now, we will send you home.

ULYSSES. Thank you, friend! I am longing to go home to see my wife and child. I have not seen them for twenty years.

[*Curtain.*]

ACT V.

EUMÆUS'S HUT.

[*Eumæus sits in his hut working. Ulysses comes up the road looking like a beggar. Eumæus hears footsteps and looks up.*]

EUMÆUS. Welcome, stranger! Come in! You look poor and hungry. I have not much to eat, but I will try to find something. The best goes to the palace for the suitors. Telemachus, my young master, has been trying to drive them out. They want to marry Penelope.

ULYSSES. Is this the land where Ulysses lives?

EUMÆUS. Ah yes! But Ulysses has not lived here for many years.

ULYSSES. But who is king now?

EUMÆUS. While Ulysses is away the suitors are trying to get the throne. Penelope does not want to marry them; but if Ulysses does not come soon, she will have to. Oh, if my master would only come! Telemachus, his son, has gone to Sparta to look for him.

ULYSSES *(looking out of doors)*. Someone is coming.

EUMÆUS *(jumping up)*. It is Telemachus! *(He runs out and returns with Telemachus.)* My dear young master! The gods have kept you safe.

I was afraid I should never see you again. Sit and let me look at you. You do not often visit me. But did you learn anything of your father?

TELEMACHUS. No! Menelaus and Nestor had no news except that he left Troy safe. I fear I shall never see him.

ULYSSES. Ulysses will return.

TELEMACHUS. What, old man? Are you a prophet? But all beggars come to us with the same tale. But it cannot be true. Eumæus, I have not been to see my mother since I came back. Go to the city and tell her that I am here. Cheer her heart! *(Eumæus goes out. Telemachus sits thinking. Ulysses sees Athena beckon and leaves the hut. Soon he returns looking like himself.)*

ULYSSES. Telemachus!

TELEMACHUS *(looking and leaping up)*. What is this? Are you some god? A moment ago you were a beggar. Now you are a hero.

ULYSSES. I am not a god, Telemachus! This change is the work of Athena. I am Ulysses, your father.

TELEMACHUS. It cannot be true! My father is dead.

ULYSSES. Has your mother never told you of the great hunt where your father was wounded? See the scar!

TELEMACHUS *(joyfully)*. My father! But how did you come from Troy? What lands have you seen? What adventures have you had?

ULYSSES. Sit, and I will tell you all the story, and you shall tell me of Penelope, and we will plan the driving out of the suitors. But my coming shall be a secret to all but you.

[*Curtain.*]

ACT VI.

IN ULYSSES'S PALACE.

[*Suitors sit eating. Telemachus enters.*]

FIRST SUITOR. Oh, ho! Telemachus!

SECOND SUITOR. With news of the great Ulysses?

THIRD SUITOR. Full of wonderful adventures, I suppose!

FOURTH SUITOR. He comes to visit his friends.

FIFTH SUITOR. You are welcome to our house, stranger! *(During this talk, Telemachus walks gloomily to a corner and sits down. Ulysses enters in rags.)*

FIRST SUITOR *(pointing)*. See! A beggar.

SECOND SUITOR. Did Telemachus bring him?

THIRD SUITOR. Oh, Perhaps he is the great Ulysses! *(All laugh.)*

ULYSSES. I am hungry, my lords! Give me something!

FOURTH SUITOR. Yes, surely! Here is the best from my share. *(Throws bone at Ulysses. Ulysses walks to fifth Suitor.)*

FIFTH SUITOR. No! I am hungry myself. Go and ask Telemachus!

TELEMACHUS. Come, old man! Sit with me! *(All feast and laugh for a while.)*

FIRST SUITOR. Let us leave the king and his noble guest. *(All laugh.)*

SECOND SUITOR. Yes, there is better sport out-of-doors. *(Suitors go out.)*

TELEMACHUS. These are the men who wish to marry my mother. Now I must go to care for my boat. Surely Ulysses is at home in his own house. *(Telemachus goes out. Ulysses sits thinkng. Penelope comes in. Eurycleia follows.)*

PENELOPE. Old man, you are welcome! I hear that you have a story of Ulysses.

ULYSSES. Yes, Lady Penelope! I saw him at Troy.

PENELOPE. Tell me of him! It is twenty years since I saw my dear lord. People try to make me think that he is dead. But I believe that he will yet come home.

ULYSSES. And so he will. The gods are keeping him.

PENELOPE. And then he will draw his good bow and drive out these suitors.

ULYSSES. And this house shall be rich and proud again.

PENELOPE. Oh, may the gods send him soon! You say that you once saw Ulysses? Tell me how he looked! Was he still strong and young? What sort of clothes did he wear? When did you see him?

ULYSSES. It was long ago. I saw him at the council of chiefs before Troy. But I remember that he wore a thick purple cloak, and his chiton was of shining linen. He wore a beautiful pin to fasten his cloak. It was of gold with a carved hound holding a fawn.

PENELOPE. Now, stranger, you shall have honor in my house; for you have told me a pleasant thing. I wove that cloak and that chiton. On the day when he sailed I took them from the chest and folded them and I gave him the pin. Eurycleia, this old man has walked far. He must be footsore. Bring water for his feet! *(Eurycleia gets basin and washes Ulysses's feet. She sees the scar and tries to cry out. Ulysses stops her. They look at Penelope, who sits thinking.)*

PENELOPE. Good night, stranger! You are welcome in my house. *(She goes away.)*

[*Curtain.*]

ACT VII.

IN ULYSSES'S PALACE.

[*The Suitors are feasting and laughing. Ulysses and Telemachus sit in a corner together. Penelope comes in. She carries a bow. All the Suitors rise.*]

SUITORS. Lady Penelope!

PENELOPE. For a long time you have wanted me to marry one of you. You say you will not wait any longer. But it is hard for me to decide. At last I have thought of a plan. When my lord went to Troy, he left his great hunting-bow. Now I promise to marry the man who can shoot through the holes of twelve ax-heads set up in a row. Often I have seen the great Ulysses do it. *(Penelope gives bow to Eumæus and goes away. Suitors gather around him.)*

ALL *(shouting)*. Give me the bow! Give me the bow! *(Eumæus gives it to the first Suitor. He tries to string it and fails. All laugh at him.)*

SECOND SUITOR. He is weak!

THIRD SUITOR. He can't string a bow!

FOURTH SUITOR. It isn't so easy! *(Second and third Suitors try, but have no better luck.)*

FIRST SUITOR. Let us put lard on the bow!

ALL. Yes!

FIRST SUITOR. Eumæus, go and get us some! *(Eumæus goes out.)*

ULYSSES. Let me try the bow to see whether I have forgotten all I knew about archery. *(All laugh at him.)*

SECOND SUITOR. He is a cheat. He wants to get Penelope for his wife. *(Ulysses holds up his hand as a sign that he wishes to speak.)*

ULYSSES. It is not for that. I want to see whether I have forgotten how to draw a bow.

THIRD SUITOR. Let Telemachus try first! *(Telemachus takes bow and is about to string it, but he looks at Ulysses and Ulysses shakes his head.)*

TELEMACHUS. I am too young to do it. *(Gives bow to Ulysses. Ulysses strings it and shoots through the ax-heads. Suitors stand still, amazed at what Ulysses did.)*

SUITORS. Come help us, Telemachus, to get the beggar out!

TELEMACHUS. No! He is my father.

ULYSSES. I am Ulysses, and you shall not stay in my house any longer. Neither shall you marry Penelope. *(Ulysses draws his bow. Suitors look for weapons and begin to fight. Ulysses shoots them as they take the weapons.)*

[*Curtain.*]

ACT VIII.

IN ULYSSES'S PALACE.

[*Ulysses and Telemachus stand talking. Penelope comes in.*]

TELEMACHUS. Mother, this is Ulysses, my father!

PENELOPE. Ah! It cannot be true!

ULYSSES. Penelope, do you not know me?

PENELOPE. How can you prove that you are Ulysses?

ULYSSES. Have you not seen this ring before?

PENELOPE *(looking at it)*. Ulysses!

[*Curtain.*]

ACT IX.

In Ulysses's Palace.

[*Ulysses sits on his throne.. Many people stand about.*]

All. Ulysses! Ulysses! Our king!

[*Curtain.*]

Fourth-Grade Children.

Francis W. Parker School,
Chicago.

THE DRAMATIC SENSE AN AID IN LEARNING A FOREIGN LANGUAGE.

In beginning to instruct very young children in a foreign language it is most important to connect the new, strange word-forms with ideas of which the pupil is clearly conscious. The study becomes difficult and unnatural, if new sound-images are added to those already present without linking the old and the new so that idea and form are one in the mind. The result of such separation is that the new image disappears readily, because there is nothing to fix it; it remains outside of the experience of the pupil and has no relation to his life. The first task, therefore, in the acquisition of a new language is to bring about this connection, to bring the subject-matter into the life of the child; the second task is to get the child to use the acquired terms. It is a very easy matter, in the teaching of a modern language, to overwhelm pupils with subject-matter; with phraseology which they will understand, but not use. A task much more difficult for the teacher is to keep within the range of a vocabulary so limited as will enable the children to make use of all its terms. For what impulse is there in the child's own nature to cause him to express himself in a foreign tongue? Very little, except as we employ a strong stimulus, by utilizing his desire to be active, to do something. Herein, then, lies the opportunity to meet the two problems of associating old ideas and new forms of expression; and also of employing the strongest impulse of the child for using the acquired terms himself.

The first terms in a foreign tongue should be the expression of a child's doings. For instance, the German phrase, "Ich gehe aus dem Zimmer," should not simply be memorized as a sentence, but should be an image of the pupil's action. The result of this method is that great interest is aroused, that all consciousness of imitation disappears, and that the language thus acquired will be remembered. Moreover, the pupil has ceased to depend altogether on the teacher for something to say. Every action of his, while suggesting a new expression, forms at the same time the motive for producing the new form. There is, however, a limitation to carrying on the work in the way above mentioned. We deal with class-room instruction, and therefore only a limited number of activities can be introduced naturally into the work. A great many everyday activities would appear absurd if performed in a class-room, because they do not belong there; and yet these every-day activities are far too important to be left out of the work. But how can we make them seem natural? Simply by appealing to the child's dramatic sense and to his love for imitation.

But what is a child's dramatic sense? Two years ago we tried to dramatize the fairy-tale "Snow White" in the Laboratory School, with children from nine to ten years of age. The children took great interest in the work; but when we came to the last scene, where the prince appeared, everyone was in favor of shortening his part as much as possible. Some thought it would be silly, and others said: "Nobody would want to be the prince;" in fact, only after a great deal of persuasion could we get a boy to take that part. A few children raised objections even to the introductory scene, where the mother parts with her child. Why did the class dislike these parts? There the real nature of the child showed itself in all its simplicity — sensitive to the highest degree to all that is unnatural to it. The prince, of course, is supposed to be in love with the princess; there an element entered that had nothing to do with the child's experience, and he felt this instinctively. Moreover, there was a slight touch of sentimentality in the parting scene of mother and child, because the mother was dying; and that, again, a child could not understand. But does he not want to imitate grown people? Indeed he does, for the children were delighted to take the part of the step-mother; and why? first, there was a great deal of acting connected with this part; and, secondly, of all emotions he had to express anger alone, which is certainly not foreign to his nature. How do children express anger? Do they show this emotion in their features or in violent gestures? Indeed they do not, at least not naturally. They stamp with their feet, beat somebody; at any rate, *do* something. They show joy by dancing, jumping, or clapping their hands, but not by unnatural gestures. There is an instinctive feeling in children for real art, also for dramatic art. An unspoiled child in his *naïveté* is the sharpest and best critic, as well as the most courageous one, and we shall do well to study and follow his nature. This nature will shed whatever is above or below his understanding, and a study of it will keep us from leading his imagination astray and from spoiling his natural instinct. And now, what is the dramatic sense of a child?

It is nothing but his native impulse to be active, combined with his love for imitation. Nevertheless, this dramatic motive affords a valuable aid in the teaching of modern languages. The expressions for the different actions that children have learned may be gathered and framed into a whole by short dialogues, from which we can gradually proceed to little plays. These dramatic exercises are very short at first; with the growing vocabulary, however, their length is increased. On Christmas of 1903 we learned and acted a little Christmas play, *Der Weihnachtsmann*. The idea was to bring about a touch between American children and the true German Christmas spirit. Here, not the money of the father that furnished the presents, but the kindness and generosity which the children showed an old man, the *Weihnachtsmann,* in disguise, brought a return in the form of Christmas presents. The Christmas spirit hovered about the house, and found its expression in the songs and actions of the children. The two little girls were busy baking cookies: the boys were sweeping, cleaning, and *making* things for the Christmas tree. One boy came in covered with snow, carrying the tree that he had chopped in the woods. All were helping eager to make Christmas beautiful, until they heard the Christmas bells sounding through the winter night, causing them to join in the old German Christmas song, "Stille Nacht, heilige Nacht!"

During the last two years of the Laboratory School the children presented the following plays: *Schneewittchen, Dornröschen, Schneeweisschen,* and *Rosenrot;* and in the spring of 1903 *Reineke Fuchs.* The subject of the last-mentioned play was taken from Goethe's great animal epic *Reineke Fuchs.* This

is not the place to indulge in a consideration of the high value of these animal legends, "the roots of which lie in the wild simplicity of the oldest races;" but, in common with primitive people, children have a love for the beasts of the dark forests.

REINEKE FUCHS.

SCHAUSPIEL IN VIER AKTEN, DRAMATISIERT NACH GOETHES EPOS "REINEKE FUCHS."

Motto: "Wer fremde Sprachen nicht kennt, weiss nichts von seiner eigenen."

CHICAGO, IM JUNI 1903.

(GEWIDMET UNSERER LIEBEN VORSTEHERIN, FRAU PROFESSOR DEWEY, VON GRUPPE NEUN.)

Reineke Fuchs, der Schelm! der viel begangnen Frevels
Halben des Hofes sich enthielt, so scheuet das Gewissen
Licht und Tag, es scheute der Fuchs die versammelten Herren;
Alle hatten zu klagen, er hatte sie alle beleidigt.

—GOETHE.

AKT I.

PERSONEN.

FUCHS; LÖWE; BÄR; WOLF; DACHS; KATZE; HAHN; HUND; BÄUERIN; BAUER; VIELE KLEINE KINDER.

1. SCENE.

KATZE. Au, au, lass mich loss, lass mich los! Du tust mir weh.

HUND. Du bist ein Dieb; gieb mir den Kuchen!

BÄR. Hört das Geschrei! Der Hund beisst die Katze.

LÖWE. Geh, Wolf, und trenne die Beiden! Bring sie zu mir!

WOLF. Ja, Majestät! *(Der Wolf fasst die Katze und den Hund.)*

WOLF. Wollt ihr das sein lassen! Hört auf zu zanken!

HUND. Die Katze hat meinen Kuchen gestohlen.

KATZE. Der Hund hat mich gebissen.

WOLF. Seid still! Kommt mit zum König! Er wird euch bestrafen.

LÖWE. Schämt euch, dass ihr Streit habt! Was ist los?

KATZE UND HUND. Ich habe keine Schuld.

LÖWE. Seid still! Stellt euch unter den Baum!

LÖWE. Ruhig, still, oder ich will nichts mehr hören! Was hat der Fuchs getan?

ALLE. Er hat gestohlen, er hat gestohlen.

LÖWE. Einer soll sprechen.

WOLF. O König, du bist gross und mächtig! Höre, was ich dir über Reineke Fuchs zu sagen habe! Einmal ging ich in dem Wald spazieren. Da hörte ich ein lautes Geschrei. Ich lief schnell zu der Stelle, von welcher das

Geschrei kam. Was glaubst du, o König, was ich sah? Hinter einem Busche sass die arme Katze und schrie so laut sie konnte. Der Fuchs hielt die arme Katze bei den Ohren und zauste sie, und wenn ich nicht gekommen wäre, so hätte der böse Fuchs sie sicher getötet.

KATZE. Ja, das is wahr, o König!

LÖWE. Hat sonst noch jemand etwas über Reineke Fuchs zu sagen?

ALLE. Ja, ich, ich!

LÖWE. Lasst den Hund sprechen.

HUND. Einmal waren der Fuchs und ich Freunde. Wir gingen zusammen auf einem Wege spazieren. Dann sagte ich zu dem Fuchs: "Ich habe so lange keine Fische mehr gegessen; ich möchte so gern Fische essen." "O," sagte der Fuchs, "das ist nichts; wir kommen gleich zu einem Teich, in welchem viele Fische sind. Du musst deinen Schwanz in das Wasser hängen, dann werden die Fische kommen und anbeissen." Ich tat, was der Fuchs mir sagte. Aber es war Winter, und es fror sehr stark. Nach einer halben Stunde war mein Schwanz fest gefroren. So verlor ich meinen halben Schwanz. Der Fuchs aber lachte.

LÖWE. Ist das wirklich wahr? Das ist schrecklich.

ALLE. Da kommt der Hahn.

HAHN. Sieh hier, o König, was der Fuchs getan hat! Eines Tages kam der Fuchs zu mir. Er war wie ein Mönch gekleidet, hatte die Hände gefaltet und betete. Ich sagte zu ihm: "Was ist geschehen," und er antwortete: "Ach mein lieber Hahn, fürchte Dich nicht mehr! Es ist jetzt Friede auf der Erde unter allen Tieren. Niemals werde ich wieder jemand aus deiner Familie töten." Nun ich glaubte dem Bösewicht, ging zu meiner Familie und verkündete: "Ihr könnt jetzt alle ohne Furcht ausgehen." Und alle gingen aus, und was denkt ihr, was geschah? O hört alle, hört alle, die Schandtat des Fuchses! Der Bösewicht sass hinter dem Zaun, und als meine Familie heraus kam, mordete er alle, alle, o König! Diese hier, meine Tochter, ist die letzte. Und ich bin ganz allein auf der Welt.

ALLE. Ja, ja, der Fuchs ist ein Mörder. Du musst ihn töten.

LÖWE. Hat niemand etwas für den Fuchs zu sagen?

DACHS. Ich, o König, bin allein ein Freund des Fuchses; er ist mein Onkel. Ja, der Wolf erzählt da schreckliche Geschichten von dem Fuchs, aber von sich selbst sagt er nichts. Hört zu: Einmal waren der Fuchs und der Wolf Freunde; sie gingen zusammen auf einen Wege spazieren. Da kam ein Fuhrmann des Weges daher. "Ich rieche Fische; auf dem Wagen sind Fische." sagte der Wolf; "lege dich an den Weg und stelle dich tot." Der Fuchs legte sich an den Weg. Der Fuhrmann sah ihn und dachte: "Das giebt einen schönen Pelz für mich." Er stieg von dem Wagen, nahm den Fuchs und legte ihn auf den Wagen und fuhr weiter. Nun der Fuchs warf alle Fische von dem Wagen. Als er fertig war, sprang er herunter und wollte auch Fische haben. Aber der Wolf hatte alle gefressen. Und der Hahn, ach der Hahn klagt immer.

LÖWE. Der Fuchs muss zu mir kommen. Aber wer will mein Bote sein?

ALLE. Ich nicht, ich nicht!

LÖWE. Der Bär soll gehen. Er ist stark und kräftig. Sag' dem Fuchs: "Der König wünscht, dass du zu ihm kommst."

BÄR. Jawohl, Majestät!

[*Vorhang fällt.*]

AKT II.

1. SCENE.

[*Vor der Höhle des Fuchses.*]

FUCHS *(singt)*. "Im Wald und auf der Heide u. s. w." Es klopft! Wer mag da sein? Ich will einmal sehen. Aha, der Bär! Wer ist da?

BÄR. Ich bin es, der Bär. Der König hat mich gesandt. Du sollst zum König kommen.

FUCHS *(öffnet die Tür)*. Ah, guten Tag, mein lieber Bär! Woher kommst du?

BÄR. Ich komme von dem König.

FUCHS. So so! Warum denn will der König, dass ich zum Hofe komme?

BÄR. Die Tiere haben dich verklagt. Der König will dich hören.

FUCHS. Ach so! Aber sag einmal, lieber Bär, bist du nicht sehr hungrig? Du hast solch einen weiten Weg gemacht.

BÄR. Ja, ich bin wirklich sehr hungrig. Ich möchte gern ein wenig geniessen.

FUCHS. Was darf ich Dir anbieten? Ich bin so arm. Möchtest du vielleicht ein bischen Honig?

BÄR. Honig! Ach ja, Honig esse ich für mein Leben gern. Hast du welchen?

FUCHS. Ich selbst habe keinen, aber ich weiss einen Bauernhof, auf dem wir Honig finden können.

BÄR. O, lass uns schnell dahin gehen! *(Beside gehen ab.)*

FUCHS. So komm! Hier liegt ein Baumstamm, in welchem du Honig finden kannst. Stecke deine Nase recht tief hinein.

BÄR. Au, au, au!

FUCHS. Ha, ha! Lass dir den Honig gut schmecken!

BÄR. Au, au, ich sitze fest! Mach' mich los!

BAUER. Da ist ein Bär, da ist ein Bär! Schlagt ihn tot, schlagt ihn tot!

BAUERIN. Ein Bär, ein Bär! Kommt alle, wir wollen ihn tot schlagen! *(Bär reisst sich los.)* Der Bär ist los, der Bär ist los! Lauft, lauft, er wird uns fressen!

BAUER. Nein, nein, wir wollen ihn tot schlagen!

[*Vorhang fällt.*]

2. SCENE.

[*Am Hofe des Königs.*]

WOLF. Auf, auf, zum Hofe des Königs! Kommt alle herbei, ihr treuen

Untertanen! Der Bär, der Gesandte des Königs, ist zurückgekehrt; er wird uns erzählen von der neuen Schandtat des Fuchses. Herbei, herbei! *(Alle kommen.)*

BÄR. O weh, o weh! Seht mich an! Das hat der Fuchs getan.

LÖWE. Seid still! Lasst uns hören, was der Bär zu sagen hat.

WOLF. Ruhe, Ruhe, der König will sprechen! Alle sollen sich setzen.

LÖWE. Lasst uns hören.

BÄR. Ich kam zu der Höhle des Fuchses. Reineke Fuchs war sehr freundlich gegen mich und fragte mich, ob ich nicht ein wenig Honig haben wolle. Ich sagte: "Ja, sehr gern." So gingen wir zusammen zu einem Bauernhaus. Vor demselben lag ein Baumstamm. Der Fuchs sagte: "Stecke deine Nase recht tief hinein, da wirst du Honig finden." Ich tat es, der Baum klappte zu, und ich war gefangen. Dann kamen der Bauer und die Bauerin und schlugen mich, und seht hier, meine Wunden, O, sie tun so weh!

LÖWE. Das ist schrecklich. Was sollen wir tun?

ALLE. Den Fuchs töten, den Fuchs töten!

LÖWE. Ich will noch einmal Boten senden. Katze, du sollst gehen.

KATZE. Ja wohl, Majestät! *(Alle ab.)*

[*Vorhang fällt.*]

AKT III.

I. SCENE.

KATZE *(singt)*.. "Fuchs, du hast die Gans gestohlen."

FUCHS. Was höre ich? Das ist die Stimme der Katze. Ich muss mal sehen, ob sie kommt. Ah, da ist sie! Nun schnell in's Haus!

KATZE *(klopft)*. Reineke Fuchs, mach' auf; mach' auf! Ich komme vom König.

FUCHS. Ah, guten Tag, liebe Katze! Wie geht es dir? Es freut mich sehr, dich zu sehen. Was bringt dich hierher?

KATZE. Ich komme vom König. Der König sagt, Reineke Fuchs soll zu mir kommen. Ich habe viel Schlimmes von ihm gehört. Du sollst dich verteidigen.

FUCHS. So, so! Aber willst du nicht ein wenig herein kommen?

KATZE. Nein, danke! Ich muss sofort zurückkehren. Doch würde ich dankbar sein für etwas Speise und Trank.

FUCHS. Ach ja, das habe ich ganz vergessen! Aber ich habe noch eine Maus im Haus; ich will sie schnell holen.

KATZE. Ah, schön!

FUCHS. Hier, lass dir die Maus gut schmecken!

KATZE. Danke sehr!

FUCHS. Möchtest du nicht noch ein paar Mäuse dazu?

KATZE. Ja, sehr gern!

FUCHS. So komm mit mir. *(Beide gehen zu dem Bauernhause.)*

FUCHS. Sieh, hier musst du durchkriechen. Dann wirst du viele Mäuse finden.

KATZE. Wirklich! Aber wird niemand kommen?

FUCHS. O nein!

KATZE. Au, au, ich bin gefangen!

FUCHS. Ha ha ha! Beissen die Mäuse? Bring' dem König meinen Gruss.

KNABE. Hier ist der Dieb, hier ist der Dieb!

FRAU. Ach was, das ist nicht der Dieb. Eine Katze frisst keine Hühner. Lass sie laufen!

KNABE. Geh!

2. SCENE.

WOLF *(bläst sein Horn).*

TIERE. Was ist los, was ist geschehen?

WOLF. Kommt alle herbei, kommt herbei! Die Katze ist vom Fuchs zurückgekommen. Sie ist grausam verstümmelt. Der König kommt.

LÖWE. Nun erzähle uns, was geschehen ist.

KATZE. Ich kam zum Hause des Fuchses. Reineke Fuchs war sehr freundlich gegen mich. Er fragte mich, ob ich nicht ein paar Mäuse haben möchte. Ich sagte. "Ja, sehr gern." Nun gingen wir zu einem Bauernhaus. Unter der Scheunentür war ein Loch. "Durch dieses Loch musst du kriechen," sagte Reineke Fuchs. Ich kroch hindurch und war gefangen. O weh, die Knaben haben mich so geschlagen, und ein Auge habe ich verloren! Seht hier!

LÖWE. Das ist schrecklich. Ich muss Soldaten zu ihm schicken, oder will noch Jemand zu ihm gehen?

DACHS. Lass mich gehen, o König! Ich werde den Fuchs gewiss mitbringen, denn ich bin sein Neffe.

LÖWE. Gut, so geh! Wann wirst du zurückkommen?

DACHS. Morgen in acht Tagen werde ich zurückkommen.

LÖWE. Nun gut, und an dem Tage will ich Gericht halten. Kommt dann alle hierher!

ALLE. Heil, heil dem König!

[*Vorhang fällt.*]

AKT IV.

1. SCENE.

FUCHS. Ah, da kommt ja mein lieber Neffe, der Dachs!

DACHS. Guten Morgen, lieber Onkel! Wie geht es dir? Weisst du warum ich komme?

FUCHS. Ja gewiss, du kommst zum mich zu holen. Erzähle mir doch mal, was hat man eigentlich gegen mich gesagt. Warte einen Augenblick. Kinder, bringt ein paar Stühle!

DACHS. Du bist schlimm daran. Alle haben dich verklagt. Einer sagt, du habest gestohlen, ein anderer, du habest gemordet, und alle wollen deinen Tod. Warum hast du auch soviel Böses getan? Du musst dich bessern und mit mir zum König kommen.

FUCHS. Ja, ich muss mich bessern; ich will auch mit dir gehen. Geh' doch in's Haus und sage meiner Frau guten Tag.

DACHS. Das will ich tun, aber wir müssen bald fort gehen. *(Ab.)*

FUCHS. Ja, gleich! Was kann ich tun, was soll ich dem König sagen? Ah, ich weiss schon!

FUCHS. Lebt wohl, Kinder! Seid brav und ich bringe euch etwas Schönes mit!

2. SCENE.

WOLF. Kommt alle herbei, kommt alle herbei! Der Fuchs, unser Todfeind, ist gekommen. Der König wird nun Gericht halten. Kommt alle herbei!

LÖWE. Der Angeklagte ist hier. Nun, bringt vor, was ihr über ihn zu klagen habt.

HAHN. Reineke Fuchs hat meine ganze Familie ermordet.

KATZE. Reineke Fuchs hat mich betrogen. Ich have nur noch ein Auge.

WOLF. Ich habe gesehen, wir er den Hasen behandelt hat. Und mich hat er oft betrogen.

BÄR. Seht hier meine Wunden! Das hat Reineke Fuchs getan.

LÖWE. Reineke Fuchs was kannst da auf diese Klagen erwindern?

FUCHS. Nichts, o König! Ich weiss, dass ich schwer gefehlt habe.

LÖWE. So nehmt Reineke Fuchs gefangen, und wir wollen Gericht über ihn halten. Wir wollen ihn zum Tode verurteilen oder zu lebenslänglicher Gefangenschaft.

WOLF. Jawohl, Majestät! Hier ist die Urne, hier sind die Kugeln. Die schwarzen sind für Tod, die weissen für Gefangenschaft. Nun beginnt!

LÖWE. Zähle die Kugeln.

WOLFE. Nur eine weisse Kugel, alle andern sind schwarz.

LÖWE. Das Urteil lautet auf Tod durch den Strang.

WOLF. Reineke Fuchs, du wirst Morgen gehängt werden.

FUCHS. Ich habe es verdient.

LÖWE. Führt Reineke Fuchs in's Gefängnis.

ALLE. Hurra, hurra! Der Fuchs wird sterben! Hurra, hurra!

ALLE *(singen)*. "Das Füchslein lag unter'm Birken reis."

DACHS. Warte, Reineke Fuchs! *(Beiseite.)* Ich will dir helfen!

BÄR. Der Fuchs ist los. Der Fuchs ist los.

ALLE. Fangt ihn, fangt ihn!

[*Ende.*]

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DRAMATIC PLAY IN THE KINDERGARTEN.

Of all ages of man perhaps the time of childhood is the most dramatic. During the play period of growth the child is wrapped up in the construction of a world of his own in which he utilizes the fragments wrested from the other world which surrounds him. He takes on character after character, adjusting and arranging such properties as the part demands and chance throws in his way. This age of impersonation begins very early, as all observers in the nursery know. The baby of two and a half years will assume a part and keep it faithfully, rising to the dramatic when he demands that his play-fellow enter into the action in rejoinder or counter-play. To suppose that imagination in the average American kindergarten needs stimulus is to suppose that Newcastle is suffering for want of coals. It reminds one of a question recently stated as a great educational problem at one of our educational associations: "How can I generate spontaneity in children?" The question might perhaps be better stated as, "How have I successfully checked spontaneity?"

There are processes enough going on about a child to furnish him with motive and *dramatic personae,* and he is not long in supplying a plot sufficient for his purposes. It is not necessary to drum up a play in the kindergarten or first grade, but it is desirable to make a selection. In the short three hours that the children spend together something significant should be undertaken as subject-matter for their plays, and they should learn to make their various suggestions cohere, and organize themselves for parts and action. It is essential, if the play of school be anything more as education than the plays of home and street, that they leave a residuum or bias toward something that can be grown into. The processes or people that enter into their dramatizations should have a meaning as social factors, and the dramatization should assist in their comprehension of the functions really performed in life. On the side of literature, something may be said also of the possibility of seizing the dramatic moment suggested by such stories as have a dramatic core. These situations dramatized surely lend vigor and elasticity to a child's grasp of the form and content of essentially dramatic literature. The tendency has been, so far as songs and stories are concerned, to dramatize too much, and to force an action where the text suggests little. There are many pretty things, many lovely things, that have no definite action which would appeal to a child's dramatic impulse. Sunbeams are pervasive, enveloping, subtle, quiet. There is nothing in sunlight, or sun shafts, to suggest action; nothing that a child would spontaneously tend to represent. The same is true of many other impersonations encouraged in the kindergarten. They are pretty; the children like the performance; but they are not quite true to the sincere play impulse, too much an outgrowth of the teachers grown-up appreciation of the beauty and meaning of the things represented, and undertaken because some attractive little song suggests the ideas dramatized. Nothing is gained of force and vitality by this. The power to seize upon the significance of a dramatic, living, moving point in a situation is born in children, and to keep this vigorous interpretative power alive, it must be trusted to them to give us hints as to the nature of situations that are worth while as material for dramatic representation. Watch children at play in the nursery or garden, or on the playground, in small groups, and see the centers around which their action vibrates. There is "go" and character in every motif. But in all there is definite action which has appealed to the actor, and not a subtle, quiet thing, however he may appreciate the beauty of the latter.

It is somewhat singular that, in spite of the fact that impersonation is a most general form of expression at this age, so much of the kindergarten play should be developed at the initiative of the teacher rather than that of the children; and not only at the initiative of the teacher, but often after a model which she sets up for them to copy. In this instance she usurps more than her just pedagogical right, as a grown-up play-fellow and general manager. The great function of play is that of revealing a child's idea to himself, and the great motive force in play is the impulse. Consequently, if play is to be conserved as the great educational force of the kindergarten, it must hold fast to these two conditions: spontaneity, or the impulsive carrying out of the idea; and fidelity, or truth to the idea, however crude it may be. Through this very crude expression the kindergartner is enabled to read the indefiniteness of the idea, and so can work to build up definiteness through fresh experiences, rather than by taking that easy, but dangerous, short-cut of conscious imitation.

To illustrate this point the following instance may be cited: A group of children were playing at mowing grass with a scythe. Their movements were absurd from the representative point of view. There was little or no sign of imaginative purpose back of the gymnastic in the children's minds. The teacher began to suggest: "That's not the way. This is how the man swings his scythe." But she checked herself and stopped the play to ask some questions concerning the farmer's use of the grass—whether he wanted much or little hay, where he would cut to get the most hay, etc. In a moment the play was resumed with an entirely different comprehension showing through the children's action, utterly at variance with their former careless hacking. It was not imitation in this case, but heightened intelligence which changed the form of the play. It is much simpler, of course, to say: "Look at John, he knows how to cut grass;" thereby losing the leverage for securing a growing clarity of ideas through play representations. In resorting to conscious imitation not only is thought lost, but the repetition of this appeal leads to the mental habit of depending upon others unduly for stimulus and for confirmation. There is a great difference between the imitation that takes place under the spell of a growing idea, and that which merely aims consciously to copy some counterfeit presentment of the true thing. The former has a vast background of unrealized possibility, and bears the stamp of a superficial and fixed finish, which invites no further contact, and suggests no vistas to be explored.

Teachers and onlookers are too apt to overlook the value of crude, incoherent efforts at dramatization, which are, nevertheless, at the root of original power, while they feel the charm of children engaged in a perfectly moving game or routine dramatization. It is probable that in plays, as well as in other forms of activity demanding effort at original construction, there should be rhythms of action, so that effort and crude experiment may alternate with the practice of a partially acquired skill, and the enjoyment of repeating the expression of a worked-out thought.

This genuine satisfaction in the process of arriving at an imaginative whole is frequently seen where children at home will spend hours in arranging for a play which in actual performance lasts but a few minutes. The arrangement of scenery, acquisition of properties, practice and shifting of parts, and preparation of costumes, and the organization of the whole imaginative construction, are the great thing from the child's point of view, and the educative aspect of it as well.

Life is teeming with situations of dramatic value to a little child, and it is the teacher's function not to teach to play, nor set the form of play, but to assure the bringing up of subjects that have dramatic moments, and then to seize the dramatic moment just when it will contribute most to a child's realization of the whole picture of which it is a part.

If play in the form of "make-believe" is then so spontaneous and universal, why is the habit so common of setting up routine forms of dramatization in kindergartens? There are many reasons, but I believe that the following factors are responsible in the main: first, the desire to make plays conform to the satisfactory forms of the old traditional games; second, the massing of children in divisions too large for natural groupings in self-initiated plays.

In studying the old ring games, it is seen that in most of them the dramatic side is subordinated to an end which has its point of interest in the culmination of some matter of chance or of competition. There is often a slight dramatic element in the words of the accompanying rhyme, or in action which merely serves to introduce the main interest or climax. In many of the old English games the point hangs on the selection of someone, by chance or by favor, for a kiss, which forms the climax; in others it ends in a chase. When sifted of other interests, chief of which are rhythm, repetition, and concerted action, the gist of the round games sifts down to one of these two climaxes. Froebel saw the charm of the form of rhythmic and concerted action in these old games, and suggested the substitution of a more worthy content.

The claim has been made that kindergarten games are not played by kindergarten children on the street or on playgrounds. If this is true, it may possibly be that in the representative game of the kindergarten the dramatic element has been kept at the expense of some point or end which, if incorporated, would make the game live after the immediate situation of interest (out of which a dramatic play is born) has passed. Many of the old traditional games show a process of degeneration in which all vestiges of meaning have disappeared from the ideas expressed in rhyme, but in many of these the zest of the little players for the outcome is not diminished by the idiocy of the expressed sentiments. Some children were overheard in a public-school yard singing:

> The needy spider,
> The dust applied 'er
> The tread that runs so true;

which, as the action of the game soon revealed, was a modification of.

> The needle's eye,
> That doth supply
> The thread that runs so truly.

The enthusiasm of the children was apparently as great as when they sang the descriptive song correctly.

The persistence of these old games through years and centuries seems to indicate that routine form, rhythm, concerted action, repetition, and some form of surprise, or some outcome not wholly known at first, are the main factors in a long-lived game. It is a question whether such games do not furnish their own justification, without trying to introduce dramatic features for the sake of embodying a dramatic content in this form. The dramatic is sure to sink into the automatic and become a mere adjunct to the main point. Would it not be better to let the dramatic features of these games be minor accessories, and save the stress upon dramatic expression for occasions that demand it?

There are occasions continually arising, in the following out of some phase of industry, in which dramatization is the only mode of expression that will organize the activity in the group of children. In these cases thought and feeling are ripe for action, and the action is most effective in its reaction upon the mental picture, clarifying it and showing the individual his own weakness of imagery. Other occasions grow out of dramatic stories, and can be utilized with similar effect.

There are plenty of games without the grotesqueness or coarseness found in some old games that have the values enumerated above as lasting — namely, physical action, rhythmic movement, concerted action, and the elements of chance or competition — which are quite within the comprehension of kindergarten children. Such games are familiar enough. "Pussy Wants a Corner," "Cat and Mouse," "Lame Fox in the Barnyard," and "Drop the Handkerchief" are all of this order.

Dancing games in simple *ensemble* forms there are in plenty for poise and rhythm; and ball games, with vigorous free action, that can be played outdoors or in, with or without the accessories of teachers and music, which would all meet the need of games that can be played by children in groups out of doors.

It is not, however, enough that play be spontaneous and free. It must grow and reflect growth, and be subject to the touch of the thoughtful and sympathetic kindergartner, who can put in her word at the right time. That is where the teacher's art enters in the guidance of these plays — not for external finish, but for the sake of internal reflection and thoughtful readjustment by the children.

BERTHA PAYNE.

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THE WOODMAN AND THE GOBLINS.

ONCE upon a time a woodman lived in the heart of a very thick wood. I don't know where the wood was — Scotland maybe, or Germany, because there are not very many thick woods left in Scotland. And this woodman lived all by himself. He did not have any wife to look after him or any children to look after. But he was a clever old fellow and managed things somehow. He built his own house and did his own cooking and mended his clothes and did all the washing that he considered quite necessary. It wasn't a very nice house, not very clean and not very tidy. He thought that things were tidy enough when they were around where they would be handy, and he had sometimes to look about a long while when he wanted a new dish-rag. And when anything got lost he had nobody to blame but himself.

Shall I tell you what he was like? He was a little stumpy fellow, rather fat, like Santa Claus, and rather good-natured, though not altogether so good-natured as Santa Claus. And he didn't have bright red clothes, and white fur, and white hair, and red face. His hair was grey, his face was the color of old furniture, and his clothes were made of brown leather, with skewer things here and there for buttons; it is a hard thing to sew buttons on leather, and now and again a bit of string does about as well.

Well, one afternoon he suddenly remembered that he had to go to the village, which was miles and miles away, to get a new ax. His old one was of no use; he had sharpened it so often that there was very little of it left, and he had work to do the next day and needed the ax badly. So, though it was getting latish, and it would be dark before he could get back, and the wood was dark early — you know woods are always dark early, and where the trees grow thick it is sometimes dark there all the time — he started off.

He found his way to the village all right, got the ax, and set out on his way home again. He didn't bother about its getting dark; at any rate he didn't bother much. He knew the way well enough, and would have told you that he could find his way home with his eyes shut. He didn't think much about it. He was thinking about something quite different. He was thinking about some bogie stories that some silly folks up at the village were telling. And, looking up suddenly, he discovered that he didn't know where he was. The road looked different somehow. He couldn't remember ever having been there before It was the thickest part of the wood he had ever been in The trees grew very, very close together — so close that he could hardly squeeze through.

When he was looking about to try to find the path — it was so dark he could hardly see at all, he had to feel about with his hands — in a hollow place in the roots of a huge beech tree he came upon six — I think it was six — big eggs.

Now, he was not hunting for eggs, but these were so big and queer-looking, as far as he could see, that they excited his curiosity. He thought to himself: "I'll take them home and hatch them out and see what kind of a queer fowl will come out of them. If I can get hens that lay thumping big eggs like that every day, I won't have far to look for a breakfast." So he took them up and started to look for the road again. He found it after a bit of trouble, and got home safe and sound without meeting any other adventure.

When he got into the house, he looked at the eggs again and thought what a splendid omelet they would make. He was very hungry after being in the woods so long. Then he thought it would be a pity not to hatch one and get a hen that would lay more eggs like these. Then he was afraid that the one he saved might be a bad one and not hatch at all. Then he talked the matter over with himself and decided reluctantly (he was very hungry) to hatch them all out, just to be on the safe side.

How was he to hatch them. He couldn't stay in bed for three weeks; that was out of the question. He was afraid to trust the cat, and the cat wouldn't do it if he asked her; and, besides, she was not big enough.

He thought of a piece of red flannel that he thought to make shirts of, and he cut it up and wrapped the eggs each in a piece and set them around the fire; and for three weeks he kept the fire going at not too fierce a heat, and never letting it go out either day or night. It was a great responsibility, but if one wants something one must work for it, and he wanted hens.

The day came at last when the eggs showed signs of life. They moved a little — just a teeny, teeny little bit; he had to look very close to be quite quite sure. And at last one began to chip, and another began to chip. One of the cracks opened, and out came — not a chicken's head, as he expected — but a little fist, a little squirming hand — something like a baby's hand, only smaller, and dark in color, almost black, a kind of a purply color. And soon there was a cracking and a squealing and a squirming, and out of one egg bobbed a head, and out of another a foot; and after the hands and heads and legs the bodies came wiggling, and six of the queerest-looking imps that you could imagine were soon sprawling on the floor. Did you ever see little doggies or little puppies, when they are just newly born — the funny way they stretch their necks about and tumble over one another? Well, these goblins behaved like that.

The poor man didn't know what to think or say or do. He stood scratching his head and staring. He never had any family before, and he didn't have any neighbors to give him any advice what to do now. The poor things looked cold. They didn't have any clothes on. They hatched out of the eggs without any clothes. They looked blue, and he looked blue.

Do you know what he did? He just snipped a little round hole out of each of the pieces of flannel that the eggs had been wrapped in, and he put them over the little shivering bodies, with their heads sticking out of the holes. It was funny, but he didn't laugh; it is a serious matter to get a big family like that so suddenly, and especially when you don't expect it.

Then he had to feed them. I don't know how he did it; he didn't have any feeding-bottles. I suppose he dipped bits of flannel into the milk, and then let them suck the flannel. They weren't old enough for a few days to manage to suck it through straws; but that's what they did later on, when they could help themselves.

I can't tell you all the trouble he had with them, or what he did when they were sick — they were often sick, because they ate and ate all day and every day, and didn't know when to stop. All this kept the poor old man very busy, and the goblin babies were a great anxiety to him. Sometimes he was so tired of it all that he thought of running away and leaving them altogether.

But he always consoled himself with one thought: "When they grow up, they can work for me. If I work for them so hard now, they will surely do things for me by and by." He imagined them running his errands to the village, and cooking the food, and tidying up the house, and chopping the firewood, and going down to the spring for drinking water.

But as they got older, instead of helping him, they hindered him more and more. "Nothing to help and everything to hinder" seemed to be the rule of their life. They were terribly full of mischief. They didn't laugh or talk much, but they were always busy doing something they ought not to do. The house was nearly set afire more than once by their tricks. But I had better not tell you the kinds of pranks they played, lest it should put naughty ideas in your heads.

The poor man was often nearly out of his wits with their wickedness, and when he was angry he could almost have killed them, when they did something especially atrocious. At last he could bear it no longer, and decided that he must do something to get finally rid of them.

Now, though they were so lively and full of sin all day long, whenever the candle was lit in the evening a strange change came over them. They all became quiet at once. They stopped whatever they were doing — putting walnut shells on the cat's feet, or spreading sticky stuff in the old man's books — whatever they were doing indeed, and gathered in around the table, and leaned their elbows on it and their chins in their hands, and stood staring at the candle with eyes like the letter O with a dot in the middle.

So one night, when the candle was lit, an idea came into the woodman's head. He thought: "I know what I will do. I'll take them back to the place where I got the eggs. If I put the candle in the lantern, they will follow the light, and I will take them to the beech tree and leave them there, and some of their own people will be sure to find them."

He took the candle and put it into the lantern, and all the goblins crowded around to see him do it; and they chatted among themselves like bats, without taking their eyes off the candle long enough to wink. They didn't wink; they just stared and stared and stared, till the old woodman felt himself staring too in sympathy. But he was desperate, and made for the door and passed out into the night.

They all came stumbling after, without looking at their feet or where they were going, with eyes glued to the light. Sometimes one fell, but got up again in a moment, and went bumping into his neighbor as before.

On the queer procession moved through the dark woods, and the maddest shadows and the wildest lights danced around their path. If they hadn't been goblins, they would have been scared out of their five wits. There was no sound but the crackling twigs under their feet, or the dull thud when one tumbled down for a moment over a root or stone.

The woodman found the beech tree and recognized it again by its odd shape. He hung the lantern on a broken branch; and after seeing that it was secure, he turned to go home.

But it was one thing to come through the woods with a lantern, and another to go through these tangled paths in the dark. When he turned he could see nothing. Total darkness. He looked back at the light. The goblins had squatted down on the ground in a circle, and sat staring up at the lantern. He turned away again, and went groping forward like a blind man. Branches struck him sharply in the face; he hurt his hand on a branch that broke as he thrust it aside; he slipped on a bit of wet ground and fell to the earth. He got up on his knees and crawled forward a little farther, and something clutched him by the belt. He got a terrible fright, thinking it was some monster; but when he felt it over he found it was only a big fallen branch that had caught his belt. He lay and sweated with fear.

Then he sat up and turned to the light again. It had a strange homelike feeling about it. His anger against the goblins had given place to his terror of the woods. The little homely faces, all so quiet now, attracted him in spite of himself.

And the light seized him more and more, and though he struggled for a time against the magic of it, he gave up at last, and crept back to the little group he had left. He took a place in the circle, forgetting everything, and filled with a great still hunger for the light of the lantern. The spell had come upon him too.

JOHN DUNCAN.

EDINBURGH, SCOTLAND.

This story was told by Mr. Duncan to a group of little children just before Halloween. The children begged to be allowed to act it out. This arranged, there followed a friendly discussion on the ways and means of doing it. Each contributed his part; each judged of the value of the suggestions made, and helped to decide upon the final results. The outline of the play was first decided upon, then the main action, then the speeches, then the scenery, and finally the costumes.

The speeches developed in the efforts to act out, and were the result of necessity. Things had to be made clear in some way, and the woodman had no one to talk to but himself, unless he talked to the cat, which was suggested, but was given up because the cat did not seem a friendly one. These speeches were written out afterwards from memory. They were changed at every rehearsal and left quite indefinite, and at the mercy of the woodman at the last.

The initiative was the children's; the product is their own. It was arrived at by free and independent thought; it was a freeing of the children's own power to think, judge, and determine; it was a co-operation with others in the solving of certain problems, a putting of things together, and a seeing and enjoying of what happened as a result. They found their complete satisfaction in playing the story out to the school Halloween morning.

M. F.

THE WOODMAN AND THE GOBLINS.

CHARACTERS.

WOODMAN. GHOSTS AND WITCHES. GOBLINS.

COSTUMES.

WOODMAN: breeches and jacket of brown leather, or any cloth that resembles leather; gray wig.

GOBLINS: union suits, close fitting, of gray or dull brown.

GHOSTS AND WITCHES: long robes, or cloaks with flowing sleeves, dark gray, brown, black or white.

EGGS are made of wire, in half or quarter ovals, and covered with white or gray paper.

ACT I.

[*Interior of woodman's hut: fireplace, cupboard, bed, table, stool. Things in disorder.*]

WOODMAN *(seated at table).* Oh dear! I am so tired of getting my own meals. I wish I had someone to help me. I sometimes go without cooking, because I hate to cook. Now I'll get the partridge. *(Goes after it.)* Why! Where is it? *(Hunts for it.)* I'll warrant the cat has it! *(Looks for cat.)* Ah there she goes! *(Chases cat out of the room and throws wood after it. Cat meows. He peers after her.)* Her eyes blaze like a witch's. I have some bacon anyway. *(Hunts for bacon, slices it, and puts it on the fire. Burns finger. Puts food on table. Hunts for knife and spoon. Sits down and begins to eat. Suddenly in alarm exclaims.)* My, I have to go to town tonight to get a new ax! I hate to go through the woods. The witches, and goblins, and fairies, and ghosts are all out tonight. Last Halloween a man saw a light far off in the wood. He couldn't take his eyes off it. He followed, and suddenly it vanished, and he was up to his neck in water. *(Looks around and sees goblin at window.)* My, but I hate to go! What's that at the window? *(Looks around again.)* It looks like such a queer face. I do have to go, and I might as well start at once. *(Puts on coat and hat, and slowly leaves room.)*

[*Curtain.*]

ACT II.

[*Dark woods; large tree in center. Enter woodman with a new ax over his shoulder. Six large eggs lying about the big tree.*]

WOODMAN. My, those were queer creepy stories they were telling in the village — of bogies and ghosts and goblins. I can fairly see them now. *(Stares about.)* Why, where am I? This road looks strange! I don't believe I have ever been here before! The trees are so close together! *(Begins to feel around for a path, and comes up to th tree where he finds the six eggs.)* Eggs! Big eggs! *(Tries to see, feels them over, counts them.)* I'll take them home and hatch them out, and see what kind of queer fowl will come out of them. If I can get hens that will lay thumping big eggs like these every day, I won't have far to look for a breakfast. But how can I hatch them? I can't stay in bed with them three weeks, and I can't trust the cat, even if she were big enough. *(Puzzled and distressed.)* Ah, I know! I'll wrap them in that red flannel I bought for a shirt and set them about the fire. *(Takes off his jacket and spreads it out to carry eggs. Begins to gather them together.)*

[*Curtain.*]

ACT III.

[*Interior of woodman's hut. Eggs before the fireplace, covered over with pieces of red flannel to keep them warm. Goblins inside.*]

WOODMAN *(standing in front of fireplace looking at eggs)*. What queer eggs these are! They have been here by the fire for three weeks now. Something ought to be coming out pretty soon. *(Sees a little movement.. First one and then another begin to chip. Hears a crackling noise.)* They are beginning to hatch now. *(Then one of the cracks open and a hand comes out, then a leg, then a head, and then all the goblins are squirming and wiggling and stretching themselves on the floor. Woodman is both astonished and frightened.)* What shall I ever do with these things? They need clothes, food, and everything. Ah, I know! *(Cuts holes in red flannel squares that have been over eggs and puts them on goblins, pulling them over their heads. Gets some milk and dips a rag in it; gives goblins to suck.)* Well, if I have to take care of *you,* you have to work for me by and by. I know what you'll have to do: you'll have to cook my food and wash my dishes; you'll carry water and go on errands. I hate to do these things myself, anyway.

[*Curtain.*]

ACT IV.

[*Interior of woodman's hut. Goblins around a dish, all eating together, gobbling down the food. Woodman watches them.*]

WOODMAN. O dear! They are eating so much and so fast, they will make themselves sick again, and keep me awake all night with their cries. *(One goblin begins to howl and dance with pains, and runs and lies down in corner of room.)* I am tired of living! I believe I'll run away and leave them altogether. But no! they would die of cold and hunger. I can't do that. *(Goblins gradually scatter about room, playing tricks on each other and on cat. Woodman sits down to read. Goblins continue to play around room. They tease woodman, and finally he spanks one. This frightens them, and they huddle together and begin to cry.)* Oh, I'm almost crazy! I know! I'll light the candle. That will quiet them. It is the only thing that ever quiets them. *(Lights candle. Light fascinates goblins, who instantly stop crying and, softly creeping nearer, sit perfectly spellbound, their chins in their hands, never moving eyes from light.)* Well, I'm glad something will keep those pests still. *(Reads on. Suddenly puts down book.)* How in the world shall I ever get rid of them? I've had them for a year now. I thought they would be of some use, but they grow more and more mischievous every day. They pester the life out of me; and the cat is as bad as they are. They have bewildered her. *(Thinks.)* Ah, I have it! This is Halloween again. I'll put that candle into my lantern, and see if they will follow the light. If they will, I'll take them back into the woods, to the beech tree where I found the eggs, hang my lantern there, and leave them to their own people. Then I'll go home. *(Woodman tries his plan. Goblins watch and follow lantern about room. Just as he leaves door, he says delightedly.)* It works! It works! It works! *(All stumble out after him, eyes glued on light.)*

[*Curtain.*]

ACT V.

[*Woods. Shadowy figures flitting about in the dark.*]

WOODMAN *(comes through forest, followed by goblins, stumbling over each other, eyes glued on light. He hangs his lantern up. They form a circle around it, never turning eyes away. He looks at them).* Ugh! I mustn't look at it myself. It'll bewitch me too. *(Covers his eyes, and is leaving when ghosts frighten him. Shadowy figures meet him at every turn. He falls over a tree or stump, and is in terror of dark and shadows. Turns back to light, glad to see it and goblins. Becomes fascinated by it, and slowly sinks on his knees and takes his place among goblins, with eyes fixed on light.)*

[*Curtain.*]

CONCERNING DRAMA AND ORATORY IN THE SCHOOL.

THE emphasis laid by students in our day upon the kinds or species of literature ought to yield some light to those who teach children in that subject. If there is a psychic and social inevitableness in the literary kinds; if there is an unvarying range of complexity and difficulty among the species upon the same level; if there are differences among the species which indicate their adaptability to children of different ages, the trying question of choosing for the schools should have the benefit of whatever simplification and certainty may come from these facts.

In accord with what seems to be the drift of thinking about other subjects in the elementary school, the literature used in this period should be of the kind that gives a large and free sweep of activity, and that exhibits literary phenomena in their simpler, more striking aspects. Those broad and simple pictures of human life and achievement which we desire to present here we find most readily in the epic kind of literature — the ballad, the saga, the romance. The well-chosen epic story comes near to presenting a direct and unmixed interest. It lacks little of being a purely individualistic and single-minded matter, for, in it the child can follow the fortunes of his hero, the flow of incident and accomplishment, with very little diverting of his mind to side issues. There is little complication of interests, little interweaving of plot, practically no modification of motives, no introspection or analysis, none but the simplest interplay of characters.

The more striking and primary things of literary form which we desire the child to feel at this stage of his experience are to be found in the simple ballads and lyrics — poetry which, so far as its subject-matter goes, is broad and direct like the stories, and for its verse-form is of the singing kind, simple and melodic, easily set to music, easily trumpeted forth in the joyous jog-trot so dear to the elementary ear, reveling as it does in the riches of rhythm and rhyme and meter.

But in the last year (merely to set a limit) of the elementary school and in the first two years of the secondary school there comes a change. The children turn voyagers, setting sail each from his island of childhood, on a stream full of craft to be reckoned with; they make port in a busy harbor; they set foot upon crowded city streets where people stream in and out of temple and market and playhouse; dropping the figure, the child becomes conscious of the complexity of interests in life, and begins to take on his relations to the world. His studies in history have now become studies in the interweaving of human destinies, the interaction of complex factors. His own experience he now sees as a constant compromise and adjustment. Social institutions press their claims; the college looms just ahead, conditioning all his undertakings; the church makes its appeal or asserts its rights; upon all too many children the institutions of business and industry begin to call. So epic simplicity and directness no longer satisfy him as a picture of human achievement — they no longer represent life as it begins to show itself to him. Is it not, then, the right moment to introduce him to the drama, the literary drama as it is actually constituted? Of course, he will have had throughout his elementary period plays made for him, and made by himself, but these were only the epic material put into shape under the most primitive of dramatic impulses — those of dialogue and action; plays which were little more than games and little other than speechifying. But now he has, perhaps, his first moment of real ripeness for the characteristic dramatic things, such as the clash and combination of institutions with one another, the revolt of the individual against the institution, with his final ruin or adjustment, the claim of law and an impersonal moral order, the interweaving of interests and motives, the evolution of character under the action of these larger influences and the action of other characters. In short, have his own experiences not now prepared him for what is in art the most characteristic presentation of the complex of human society — the literary drama? Luckily, there are in the literary drama grades and shades of complexity, and a wide range of choice as to the nature and difficulty of the problems involved. One would scarcely encourage the eighth-grade child or the high-school freshman to attack the intricate adjustment and interplay of *Hamlet;* he would surely not be expected to follow the baffling complexities of social, personal, and economic considerations through *The Pillars of Society.* But *The Merchant of Venice* offers problems and situations that he can understand; in *Julius Cæsar,* in *Wilhelm Tell,* in the *Wallenstein* plays, in *Macbeth,* noble and finished dramas as they are, he encounters nothing too mature or complex for his comprehension and appreciation. On the contrary, the ideas and situations are precisely those that satisfy his interest, and legitimately enlarge his horizon.

In matters of form the child at this period is ready to pass from the simple music of lyric and ballad. He can readily appreciate the more delicate and remote effects of dramatic verse; and he should now have a chance to learn the sonorous and lofty music of impassioned prose. Now, if ever, he has his prime hour of readiness for the orators, both because the subject-matter of the orations appeals to him as never before, and perhaps as it never will again, since he is now for the first time interested in social and political questions of the kind with which the orators deal, and since, as he goes on, he will probably grow less accessible to the emotional appeal made by oratory; and because he needs the artistic enlargement and satisfaction that he would get from the musical flow of eloquent prose.

And the significance of the fact that oratory and the drama are primarily and predominantly spoken literature should be always in view. The very fundamental fact of literary form, that it is intended to reach us through the ear and not through the eye, has almost dropped out of consciousness, so deep has been our long enslavement to the printed book. Literature should, in the nature of the case, have been the first of the disciplines to be emancipated from the printed book, instead of being, as it is, almost the last. But all the signs point to such an emancipation, and toward a revival of oral literature. In such a revival the teacher of literature can materially assist by training children, at the hour of their first readiness for them, in oratory and in drama.

Such a training calls for a close correlation of the studies in literature at this period with the training in vocal and dramatic expression — in acting and speaking. Such a correlation would free the discipline in expression from the stigma of being mere elocution. It would put behind the children a vital reality which they desired to express, and it would open a suitable avenue for the active side of the work, so essential in the study of literature. It would do something to free the children's literature from that unreasonable connection with composition in which it has suffered so much. If, instead of producing stale or crude literary criticism, as our children now too often do by way of themes saddled upon their literature, they were learning to render with intelligence, with taste, with emotion, the words of the masters themselves, great would be the gain to the children in interest and sincerity, and incalculable the beneficent effect upon the literary and dramatic art of the future.

PORTER LANDER MACCLINTOCK.

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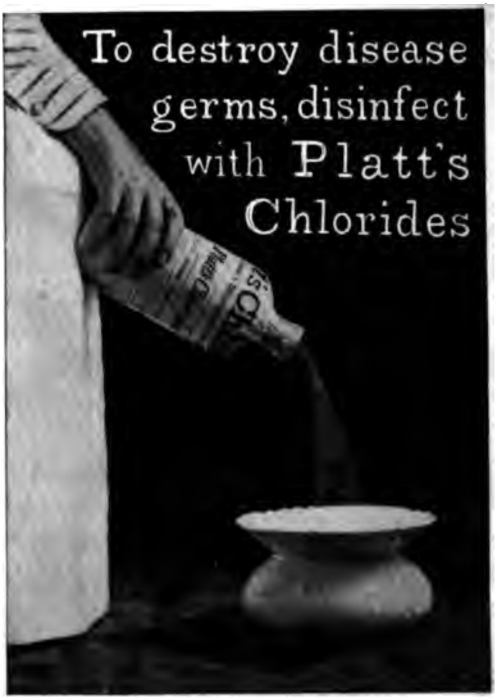

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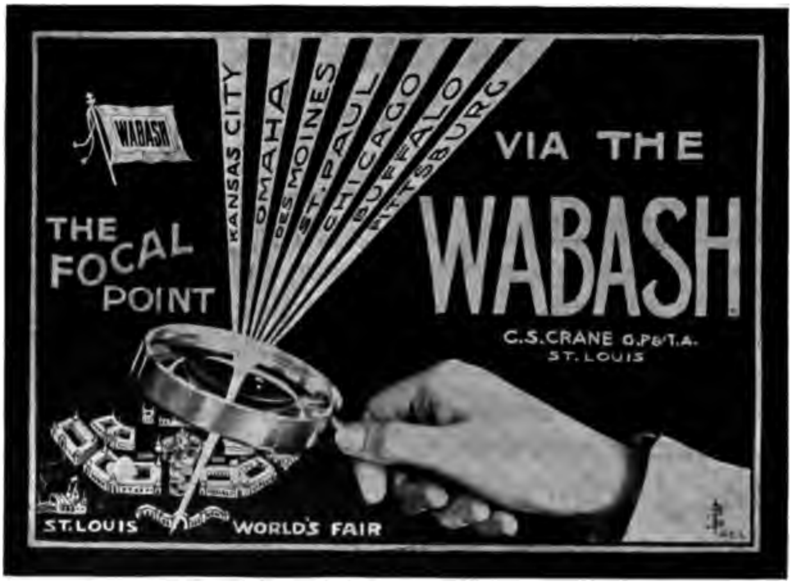

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CONTENTS FOR MAY, 1904

POSSIBILITIES IN MUSIC STUDY - - - - - - - - ELEANOR SMITH 605
PRESERVATION OF THE VOICE - - - - - - - HOMER M. THOMAS 613
EDUCATION THROUGH MUSIC - - - - - - - CHARLES H. FARNSWORTH 623
SIGHT-READING FOR NORMAL AND SUBNORMAL CHILDREN MAY ROOT KERN 629
HABIT AND ELEMENTARY WORK IN ENGLISH - - - - ANNA J. McKEAG 638
THE HISTORY OF THE VERNACULAR IN EDUCATION. II - IRVING ELGAR MILLER 642
AN EXPERIMENT IN TEXTILES - - - - - - CLARA ISABEL MITCHELL 653
TEXTILE WORK CONNECTED WITH AMERICAN COLONIAL HISTORY
ALTHEA HARMER 661

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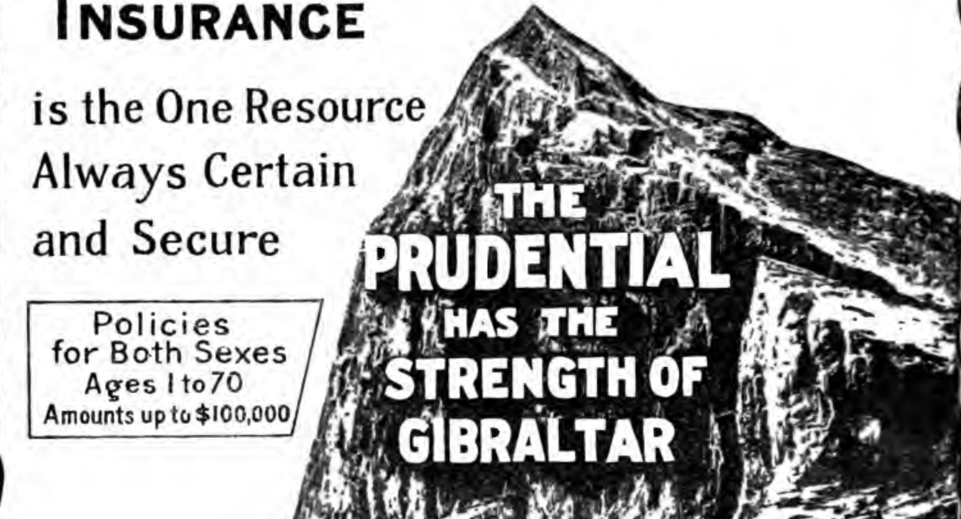

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THE ELEMENTARY SCHOOL TEACHER

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POSSIBILITIES IN MUSIC STUDY.

IN the great impulse toward the realization of a more artistic ideal in school music which swept over the country some years ago, various important truths were demonstrated: first, that children's voices, both in the mass and as individuals, are capable of a perfectly legitimate development, and that every normal voice can, if properly taught, become agreeable and expressive; second, that children like good music as well as bad, if they are given the opportunity of hearing and performing it; third, that singing in schools may become a thoroughly artistic product; further, that it may serve as the basis for a complete musical education. As a result of these new conceptions, improvement in music and music-teaching was to be seen in many localities. The abomination known as the "school tone" gradually disappeared. Teachers with some pretension to vocal gift and training took the place of the leathern pedagogues of the singing-school type, and schoolrooms began to echo with real music — even classic music. If the interpretation of these excellent works frequently left much to be desired, one had at any rate the satisfaction of knowing that the nobility of the compositions could not fail to leave a permanent impression upon the taste of the young singer. At the same time, the open-minded teacher could but be thankful for suggestions which helped preserve the sweetness and lightness of the voices in his charge.

This movement in behalf of better music and better singing marked a distinct epoch in the history of music-teaching in

America. Previous to this time the vocal ideal of the average pedagogue was to "raise the roof"—an ideal not difficult of realization. That such singing was fraught with demoralization to generations of voices was inevitable. The shrill, harsh voice of childhood developed into the throaty, nasal tone of maturity, and the new school undertook an arduous task in trying to reform both.

Perhaps it was too much to expect that this movement, while repudiating the errors of the system it had replaced, should retain their good features. At any rate, the new methods, while their artistic results were astonishing, swung so far away from the old that even the good inherent in the old was ignored. The fascination of singing a beautiful song without the drudgery of reading notes proved too great to be resisted by either pupil or teacher. Children, instead of hating the music lesson, began to love it best of all. But the rote-song reigned supreme, and any real effort at acquiring the technique of reading notes was abandoned.

The one strength of the old school was that it taught note-reading. Its methods were hard, crude, and unphilosophical; its material, uninteresting and inartistic. But it accomplished what it set out to do — namely, to give the power to decipher the symbols of written music. It did not appeal to the emotions or the expressive instinct of the singer; neither did it give any hint as to the correct use of his voice. It concentrated upon a purely intellectual aspect of the subject, and it would have been strange indeed, when the efforts of instructor and instructed were bent upon the mastery of one problem, if the children had not learned something tangible about music notation. This the more, as the unmusical children were counted out of the game, and by being "excused" from music relieved the teacher of his most difficult task.

To teach children of normal musical ear merely to read music, ignoring the vocal and interpretive aspects of the art, and stripping this to the bare bones of its theoretic skeleton, is an easy undertaking compared to the task the modern music teacher has set for himself.

The two schools which thus confronted each other might be symbolized, the one by an old, gnarled, ill-nourished tree, sending out here and there a few starved leaves; the other by a beautiful armful of blossoms from a flourishing, healthy growth, but without root or vitality of its own. The former showed some appearance of vigor, but was without power to produce either blossom or fruit. The latter offered perfume, beauty, and delight, but parted from its parent tree could equally not hope for fruition.

Latterly, however, the two schools have approached each other, and each has borrowed from the other. The disciples of the new movement were made aware that to sing, even to sing charmingly, is not enough, if the singer derives his songs by imitation from others; that the child barred out from the great field of music by his own inability to think and read is helpless indeed. For the systems which proclaim the vanity of technical training have either been found unable to give their disciples power to perform, or they have substituted a new, and often a more complicated, system of technical training for that which they condemn.

On the other hand, the old school has ceased to make certain demands which were formerly absolute. One seldom hears nowadays that "a child must not be allowed to sing what he has not read." The rote-song has been admitted, though perhaps grudgingly admitted, as legitimate material for study, and there has been some recognition of the fact that it is unjust and unwise to condemn the most musical children to an inevitable and unchanging alto in part-songs.

On all sides there seems to be a strong reaction against partial education in music. That school music may be beautiful music is now universally conceded; only there is, of course, great difference of opinion as to what beautiful music is. It is also considered, not only possible, but necessary, that children in schools should sing with sweet and unstrained voices.

But this is not enough, says intelligent public opinion. The musical sense must be trained. The power to think independently, to sing independently, to write music as well as read it, to understand good music and to love it, and even to make music of one's own, are some of the things which, we are told, may be expected today of music education in schools.

The ideal of the intelligent teacher of music is one difficult of realization. To keep the fine balance between technique and feeling, between emotional enjoyment and intellectual effort; never to forget the ultimate object of music in the midst of technical drill; to know one's music absolutely—its melody, harmony, and rhythm, the laws governing its structure and interpretation; to be master of the purely vocal side of the art; all this and much more belongs to the equipment of the thorough and artistic teacher of today.

There are, to be sure, strongholds of conservatism all through the country where the methods of fifty years ago still prevail. There are more progressive communities where we find reversions to the dry and hard intellectualism of the past. In the course of study prescribed by one eastern metropolis the study of singing will be seen to have withered and desiccated into the mastery of a set of mathematical problems. These are neatly numbered and systematized, and quite logically arranged: Problems 1-15 for the second grade; Problems 115-156 for the seventh grade. In another large city the supervisor of music insists upon a regular course of training in note-reading in the kindergarten—a barbarous proceeding, indeed, when we remember how much more complicated are the symbols of written music than those of a written language. The reactionary music master in a western city forbids everything which smacks of the "fad," within the limits of his supervision. Accordingly, because the modern teacher has made much use of music appropriate to the season, as well as songs fitting in more important respects, our supervisor prescribes for a Thanksgiving exercise a sentimental love-song beginning:

Last night the nightingale woke me,
Last night when all was still.

To the musician occupied alone with his art it might seem a far cry from a discussion of music in schools to a consideration of that much-talked-of and greatly desired good—real American music. But to the thoughtful these two subjects seem most intimately connected; for music worthy the name has sprung only from a people the mass of which has been leavened through and through by the gracious influence of song. The artistic impulse expressed itself only through an accustomed medium, and he who originates melody must have a thousand melodies in his mind. Music must be the air he breathes. The composer works out his elaborate forms from the simple songs of the people, but the songs of the people are the expression of the national artistic life, and will grow only in soil fertile with popular interest and appreciation of the art. It is, therefore, primarily the people who make the music of a country — not its musicians. These are a later outgrowth of the popular artistic life. Nor does the apparent appreciation of a large number of people of a well-advertised virtuoso argue any interest in music. The crowds that stream to the concerts of Patti and Paderewski are seeking not so much music as opportunity to see and hear a much-talked-about individual. One really simple, beautiful melody which permeates the mass of the people — which is *im Volksmunde,* which touches the heart and abides in the memory — does more than many artists for the musical growth of a nation. The artist ministers to an aristocracy, to the small company of the really cultured in the world. But in a country like America only those influences which touch the mass can hope to civilize it. The power of a music center is great to affect those within reach of its radiations. The orchestra, the occasional opera season, even the church in great cities, exert a beneficent artistic influence. But this is for the well-to-do, or for those exceptional persons who are willing to make sacrifices for the sake of a beloved art. The poor, the dwellers in city slums or on outlying farms, are all dependent upon larger and more democratic influences — the music of church and school, of the street and cheap entertainment.

Of all these forces, school music is perhaps the most potent, because the most constant, and because it is brought to bear upon the impressionable mind and unformed taste of children. Much that is simple, good, and appropriate is being taught to school children throughout this country. Folk-songs of different nations, part-songs from many artistic sources, even music of the very

[illegible]

[illegible] music.

[illegible] immediate [illegible] pupils more than his [illegible] good [illegible] music [illegible] environments is [illegible] music. [illegible] desirable and practical for his pupils. His ability to play instruments — especially the piano — will be the greatest resource in his work, though he must not confuse the less with the greater, and must not overestimate the importance of the piano in the study of singing. Some knowledge of languages, too, opens the way to much beautiful song material, which, without a knowledge of strange tongues, would be unattainable.

Perhaps the greatest fault of the special teacher in the past has been his failure to recognize the relation between his work and the general work of the school. He has too often considered the teaching of his art a thing apart, without common ground with other subjects of the curriculum. Not only this, but the music master of the past knows little of the theory of education, and less of the progress of modern thought in this direction. Many schoolbooks in constant use in America are witnesses to the truth of this statement; for these disclose methods of teaching obsolete twenty years ago in other provinces.

It has been said, indeed, of the special teacher of music that he is either a musician who knows no pedagogy or a pedagogue who knows no music. This will doubtless be true in some degree until the public realizes that more training is demanded of the special teacher than the three-week course in summer schools throughout the country. So long as the scrappy and superficial instruction given at such schools is regarded seriously by teachers and pupils, there is little prospect of improvement. In the meantime, the courses for the training of specialists offered by leading universities and teachers' colleges give evidence that there has been an awakening, in more than one educational center, to the necessity for such training.

In the larger future awaiting music education in schools, its province will be enlarged, its mission will be regarded more seriously, and greater demands will be made upon the skill and knowledge of those who teach the art. To this development will contribute only those whose outlook upon the subject is large and complete.

The school of teaching which recognizes technical training in the purely intellectual phases of the art as the one thing needful, as well as the school which finds emotional joy in singing the one essential, must realize that each conception is partial, and that only through co-operation and mutual appreciation can the true and universal way be gained.

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PRESERVATION OF THE VOICE.

Voice is the principal means of communicating our thoughts, impressions, and emotions. It is produced by vibration of the true vocal cords. The vocal cords vibrate from a current of air passing between them. While thus vibrating they are approximated, and held in a state of tension, by muscular action. The mere vibration of the vocal cords produces only a feeble sound. The intensity of the voice sound depends on the amount of the inspiratory blast, and a reinforcement of the vibrations by the resonating cavities that are above and below the vocal cords. To understand the action of the larynx in voice production, we should make an anatomical study of this organ. When removed from its muscular connections and viewed as a vertical transverse section, the larynx is shaped somewhat like an hour-glass. The true vocal cords form a line of constriction about midway between the top of the epiglottis and the lower border of what is known as the cricoid cartilage.

The true cords arise from the angle formed by the sides of the thyroid cartilage where they meet in front, a little below its middle point, and, passing backward, are inserted into the vocal processes of the arytenoid cartilages. The aperture between the vocal cords, and between the vocal processes of the arytenoids, is known as the glottis or rima glottidis. Since the vocal cords may be brought together while the vocal processes of the arytenoids are widely separated at their bases, the spaces between the cords themselves is called the rima vocalis, and that between the vocal processes the rima respiratoria.

In the adult male the vocal cords measure about fifteen millimeters in length, and the vocal processes measure eight millimeters in addition. In the female the cords are from ten to eleven millimeters in length. The free edges of the cord are thin and straight, and are directed upward. Their median surfaces are flattened. Each cord is composed of a tense bundle of fibers of yellow, elastic tissue, which fibers, though having a general longitudinal course, are interwoven, and send off shoots laterally in the subjacent tissue. This compact ligament, known commonly as the "vocal cord," forms only the free edge of a reflection from the side wall of the larynx. This reflection is wedge-shaped in a vertical, transverse section, and contains much elastic tissue, and the internal and part of the external thyro-arytenoid muscle. This whole structure properly forms the vocal cord, and by contraction of its contained muscle its thickness and vibrating qualities may be greatly modified. We therefore conclude that (1) the cricoid cartilage is the most movable part of the laryngo-tracheal tract; (2) the thyro-cricoid muscle, according to its physiological action, should be described as arising from the thyroid cartilage, and inserted into giving motion to the cricoid; (3) the air blast, by virtue of the mechanism herein set forth, is a direct and important longitudinal tensor of the vocal bands.

Having thus considered a few of the principal anatomical points of interest in voice production, we see that the vocal machinery consists of (1) the motive power of breath; (2) the larynx, which forms the tone; (3) the chest, the pharynx, the mouth, and the nose, each coloring the tone; and (4) the organs of articulation.

The production of voice is undoubtedly accomplished by the vibration of the vocal cords, which have previously been approximated in the middle line and made tense through action of the nerve-muscular apparatus already described. A blast of air from below, pressing against the cords so adjusted, causes them to separate and fall into vibration.

We have to distinguish in voice the three features of loudness, pitch, and quality.

The loudness of the tone depends upon two factors: (1) the strength of the tone-producing blast, as determining not only the amplitude of vibration of the vocal cords, but also the energy with which the air is expelled; (2) the resonance of the two chambers between which the vocal cords are suspended, the chest below and the cavities of the head above, whose walls and contained air, by their sympathetic vibration, powerfully reinforce the oscillations imparted to them.

The pitch of the voice is determined by thickness, tension, and length of the vocal cords — conditions which regulate the pitch of the note obtained from any vibrating string. The thickness and elastic quality of the cords are probably largely under the control of the thyro-arytenoid muscle. The principal tensor of the cords is the crico-thyroid muscle. Other muscles, as described above, may so fix the arytenoid cartilages that the vocal processes may be prevented from taking part in the vibration of the cords throughout the whole, and also possibly throughout part only, of their length. This dampening of the vocal processes of the arytenoids may be accomplished either by pressure applied to them throughout their whole length, in which case the posterior part of the glottis is closed, or by their being pressed together at the tips alone, leaving the respiratory glottis open as a triangular aperture.

In the human voice the current of air is furnished by the lungs, which have therefore a double duty to perform — supplying oxygen to the blood, and setting up vibration in the vocal cords for the voice. The chest is supplied with the most perfect mechanism for obtaining this current of air. The main support is furnished by the ribs, which give firmness to the chest. These are held together and supported by muscles of great strength, which raise the ribs in the act of inspiration. The lower part of the chest is inclosed by a broad, flat muscle, known as the diaphragm, which materially assists in giving its bellows-like faculty to the chest. In the act of inspiration the diaphragm is lowered and the ribs are raised, thus creating a space in the lungs which is filled by the air entering through the nose and throat. In expiration, however, this is reversed, the ribs being lowered and the diaphragm raised, the process being assisted by the natural elasticity of the lung tissues. The thorough understanding of this function of the lungs should impress us with the importance of not hampering their action by tight clothing or lacing, which necessarily interferes with their freedom of action, and by thus lowering the resistance of the body makes it more liable to the entrance of disease.

Improper methods of using the voice lead to certain affections of the throat, the chief one of which is popularly known as "clergyman's sore throat," though by no means confined to members of the clerical profession. It occurs in all classes of persons who strain the voice or misuse it. It consists in a congestion of the mucous membrane and muscles of the throat, with enlargement of many of the minute glands which secrete the lubricating fluids that keep the surfaces of the throat moist and pliable. These enlarged glands are visible in the form of prominent groups of projections varying from the size of a pinhead to that of a small bean, and are irregularly distributed upon the surface of the mucous membrane. The mouths by which these glands discharge their lubricating material become choked by swelling, and the material becomes pent up in them and is unable to escape, and so accumulates in the glands and distend them. The congestion alluded to, which is the first step in the entire process, is produced in this manner.

The muscles of the throat, which should be more or less at rest during the use of the voice, are absolutely put into continuous constrained action in the improper methods of speaking, as is evinced by noncomparable sensations during protracted impassioned speaking, or shortly after it. Just as physical consciousness of the possession of a stomach, or of a tooth, for example, is evidence that something is wrong, for the time, with the stomach or tooth, so physical consciousness of the possession of a throat during speaking, or shortly afterward, is evidence that something is wrong with the throat. The strain upon the throat muscles and the sense of uneasiness following, may both be avoided by proper use of the voice. In civilized communities, conventional or affected methods of doing things of various kinds are employed by many people instead of natural methods, for various reasons, such as the desire to impart to others a sense of individual importance or originality; and these methods are copied or imitated by others. Hence erroneous and affected methods of speaking become widespread. Especially pernicious is the common practice of indiscriminate and untrained use of the voice. Yelling out of doors, as at athletic contests, particularly football, often results in serious, if not permanent, impairment of the vocal cords. Such noises might be denominated as "unorganized" vocal noise.

As to the causes which produce a complete or partial loss of the voice, they are very numerous and varied. A simple exposure or cold draft may cause an acute inflammation of the whole mucous membrane of the larynx, with a swelling of the vocal ligaments, which are thus unable to vibrate, and the result is that the patient cannot speak above a whisper. This state, as a general rule, disappears again in a day or two, even without any treatment, and the voice regains its natural tone and strength. In many instances, however, only the total loss of the voice, if such existed, is relieved, while a hoarseness or huskiness of the voice remains, in spite of all ordinary remedies, and even general medical treatment. If this is the case, the inflammation of the mucous membrane has become chronic, and the vocal cords indurated, or thickened, so that it requires an undue amount of breath to set them in vibration, and a sense of bodily fatigue is experienced after a continued use of the voice, as in reading aloud, or even in ordinary conversation. If this chronic inflammation is allowed to remain, small ulcers or sores will make their appearance in various parts of the larynx, and vocalization, and even swallowing, may become painful. If, however, popular speakers or singers are thus affected, the exposure to a draft is generally only the observed starting-point of the disease, while the true cause of the trouble must be looked for in a faulty use and overstrain of the voice in speaking, as well as in singing, which, by constantly irritating the delicate organs of the throat, predisposes them to be thus affected. It is usually asserted that the use of the voice, coming to us naturally and without any effort, just like breath, cannot be harmful. Yet we forget that we form bad habits of speaking, as well as of any other natural act, walking for instance; and that it is these bad habits that are harmful, and not the natural use of our organs. The drawing of the voice over a considerable part of the scale, while pronouncing one syllable, as we hear it almost universally in conversation and public speaking, is not only disagreeable to the ear, and impairs the effect of the expression, but is also harmful in obliging the delicate muscles of the larynx to an undue amount of work. This is only one of the many instances of bad habits of speaking; to enumerate each would be to tax the patience of the reader too much.

Another, but by no means as common, a cause of loss of voice is a more or less sudden paralysis of the vocal cords. If their muscles remain relaxed, vocal bands are seen in the laryngoscopic mirror to be closely applied to the sides of the larynx, thus leaving a large triangular opening between them, through which the exhaled air passes without obstruction, and consequently without being set in vibration. This condition is designated as a complete paralysis of both vocal cords. In many cases, however, only one side is affected, and then we see in the mirror an attempted vocalization, and that the cord on the sound side moves toward the median line, while the one on the affected side remains quiescent. Under these circumstances a sound cannot be produced, owing to the still too wide opening between the two cords. If, on the other hand, one of the vocal ligaments is sound, and the other only partially paralyzed, so that it makes an attempt at meeting in the median line, a sound may be produced, but it will be hoarse on account of the irregularity with which the air is set in vibration. This irregularity is owing to the fact that the paralyzed cord is not as tightly stretched, and consequently does not vibrate with the same rapidity as the other one. The newsboy screaming out the titles and interesting items of his papers, overstrains his voice, and is suddenly attacked by a paralysis of his vocal cords, so that he can not utter another sound.

Still another, and by no means infrequent, cause of loss of voice is small tumors which grow either on the vocal cords themselves or on the mucous membrane in their immediate neighborhood. Such growths interfere mechanically with the free movements of the vocal cords, by projecting into the glottis, and thus preventing the necessary approach of the edges of the vocal cords. If they are comparatively large, they may, and frequently do, interfere with respiration to such an extent that it becomes necessary, if they cannot be removed early, to make an opening into the windpipe below the larynx in order to supply sufficient air to the lungs, for the aëration of the blood.

Inspiration should always be by the nostrils. The air inhaled by the mouth in quick breathing has not time to become warmed; while, by steadily breathing through the nostrils, air of a higher temperature is introduced into the trachea. But it is not for this reason only that the nose is the best respirator and protector of the lungs, but also because a considerable portion of the extraneous substances present in the air, such as dust, coal soot, etc., is intercepted by the little hairs which line the nostrils, and are thus retained and deposited on the mucous membrane of the inner walls of the nose. The importance of breathing through the nostrils has never been sufficiently recognized. Vocalists ought in the morning, immediately upon rising, to bestow particular attention to their noses.

The general rules for the preservation of the voice may be said to be substantially the same as those for the preservation of health; resting on the fundamental principle to be temperate in all things. There are, however, some particular points to be attended to, which the singer, to whom his voice is his fortune, must not neglect.

The apartments, especially the bedroom, should be dry, airy, and well ventilated. The upper stories are much preferable to the ground floor. The dress of the professional singer ought to be light, and but moderately warm. Those who accustom themselves to wearing very heavy clothing are very apt to catch colds. That neither the chest nor the neck should be cabined and confined is sufficiently obvious. The best prevention against catarrhal conditions are: daily ablutions with cold water, and hardening the body by exercise in the open air, regardless of the state of the weather. Those who are unaccustomed to the use of cold water should begin the practice in summer. Alcoholic liquors and smoking are universally injurious to the voice.

The preservation of the teeth is of considerable importance to the singer, as by their loss the resonance and the articulation suffer considerably.

Nostrums for the voice should be avoided, or at least discriminately used. They may at first appear to improve the voice, but they will ultimately and permanently injure it. Troches, cough drops, and expectorants of all kinds should be very sparingly used, as by their too frequent use the tone of the mucous membrane becomes perverted, and serious results follow.

Keep the throat, especially the naso-pharyngeal cavity, as clear and as clean as possible. Its lining requires the same care in the matter of cleanliness as does that of any other organ.

LUNG GYMNASTICS.

Preservation of the voice can be materially assisted through the use of individually indicated lung gymnastics. The importance of keeping in a high state of cellular activity the respiratory passages can hardly be overestimated. The more we study and learn of the various exciting causes which produce diseases of the lungs, the more we are impressed with the need of maintaining them at all times in a healthful state. It is doubtless true that we are all more or less constantly surrounded and forced to breathe an atmosphere laden with disease germs which excite lung trouble. In order that these germs may not become centers for the production of lung diseases, we must combat their presence by the soil condition of the lungs, which should be in itself so strong and vitalized as to render it impossible for those germs to find a medium upon which to grow, and multiply and extend their activity throughout the respiratory channels. If we cannot at all times keep our lungs free from contact with infectious organisms, we should at least persistently strive to keep up the respiratory resistance to such a pinnacle of perfection that these germs cannot find lodgment and grow. The disease-producing germs or seeds are inert, and incapable of devolving disease unless they have a suitable soil upon which to grow. One of the most potent influences in rendering the respiratory tract unfavorable for the development of disease germs is the daily use of such gymnastics as will cause complete oxygenation of all of the lung cells.

I would advocate the frequent daily exercise of deep inhalations of pure outdoor air. These should preferably be taken in a place as free from gaseous or mechanical impurities — such as smoke, soot, or dust — in the air as possible, and while the sun is shining. With the mouth closed, and shoulders well thrown back, inhale slowly through the nose all of the air which the chest can comfortably contain; then slowly exhale. If unaccustomed to deep breathing, at first there will be an uncomfortable feeling of dizziness or mild vertigo experienced. This sensation is due to the unaccustomed dilatation of the air cells or vesicles by such a volume of air. A little judgment in the daily exercise of deep breathing, which should never be persisted in to a point of discomfort or pain, will soon overcome this sensation. By degrees there will be noticed an increased expansion of the chest wall. The feeling of invigoration, tone, and elasticity, as well as buoyancy, which will soon be experienced will more than compensate for the efforts expended. Oxygen is our greatest agent for expelling respiratory waste and placing the respiratory tract in a condition to resist disease.

STOMACH.

Preservation of the voice is largely dependent, not only upon its proper use, but also on keeping the stomach in a healthy condition. Particularly severe in its effects upon the vocal organ is the use of the voice when the stomach is unduly distended by a hearty meal, gases, or the irritation which arises from hyperacidity. Intra-abdominal pressure is always exerted in the direction of the least resistance. The stomach will abnormally crowd itself upward upon the dome-shaped diaphragm, and so unduly forces the lungs into the upper chest. From this we have undue pressure upon the ramifications of the bronchial tubes, and these cause abnormal pressure upon the trachea, and so induce a congestion of the intra-laryngeal mechanism.

That state of the stomach where there exists acute fermentation of the stomach contents results in the production and elaboration of numerous forms of poisons, known as toxins. The action of these toxins upon the mucous membrane surfaces is to produce an excessive determination of blood to other surfaces. Then follows an acute congestion of the mucous membrane, to be succeeded by various inflammatory processes. The mucous membrane lining the air passages is easily irritated by gaseous eructation from the stomach. It is therefore readily seen that any condition of the stomach wherein exists the conditions named must, through irritation to the throat passages, produce more or less marked deterioration in the quality, strength, and tone of the voice. It is a well-known fact that noted singers or speakers aim to avoid any technical use of the voice for at least two hours succeeding a hearty meal. The reason for this is sufficiently obvious. Purity of the voice demands a high degree of physical perfection. Aside from the improper use of the vocal organs, and chronic catarrhal conditions of the nose, throat, and larynx, I consider diseases of the stomach one of the most important influences in bringing about impairment of the voice. Therefore, preservation of the voice can be materially assisted through keeping the stomach in a condition of physiological perfection.

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EDUCATION THROUGH MUSIC.

In a well-known city recently a conference appointed a committee "that should consist of educators and musicians." So large a term as "educator" was evidently not broad enough to include the music teacher. The term "art" should be capable of including music, and yet how often we hear "music and art"! Why is it that words covering so wide a field in both the practical and the æsthetic side of life tend to exclude music? The reason is that the term "music," which covered so much of education with the Greeks, has through the process of differentiation been gradually narrowed down, until it means the manipulation of an instrument, including the management of the human throat; or learning the notation of music; or the science of tone-structure. Music has thus become dissociated from practical life. Architecture is closely related to housing and protection from weather. Poetry often expresses the thought better than prose, and so has its use as an enlightener. Painting often expresses the situation better than any description. Even sculpture may have its practical uses in helping us see ourselves as others see us. But, owing to the peculiar nature of music, it is difficult to relate its studies to any of the necessary activities of life.

Music, above all arts, exists for the sake of the pleasure that it gives; so that education in music means a preparation for either receiving or giving certain kinds of pleasure. If we consider the term "education," we find that it means, pretty definitely in its public-school use, a preparation for life. The geography and arithmetic, reading and writing, language and history, all take their significance because of the preparation they give for the serious problem of making a success of life. Whether these studies should be taken up or not is a question, not of choice or aptitude, but of necessity. The child must experience the discipline and learn the facts, whether or not he likes to. His success in life depends very largely upon how well he does this.

When one considers the keenness of the struggle for success, and how the poorly prepared are constantly going under to make room for those who are better prepared, one realizes that there is a moral pressure behind the usual studies of the school that puts the pupil into an attitude toward them entirely different from that which he has toward music. For the study of this art, even above all other arts, is purely for the evanescent pleasure gained.

This change of moral purpose toward music study brings with it a radical change in the treatment of the study. If the sole end of music is to please, the more pleasure it gives, the better it serves its end. As naturally the pleasure is connected with the form that excites it, the technique through which that form is expressed becomes the goal of all musical effort. However inconsistently we may act, we are all willing to admit, in our sober moments, that pleasure is not attained by its direct pursuit; and this holds as true in art as in life. That art which seeks only to please soon fails to do even that. Nine-tenths of the modern theatrical performances aim to please at any cost. Yet, in spite of the wonders of scenic effects, of orchestration, of acting, and of pantomine, how dreary are most of the efforts! It is not that art has a mission beyond that of pleasing, but that it must please the whole being. The art that aims only at the sensuous fails to do this. The art of music, after being dissociated from everyday life, and having been emptied of all serious content, has been pursued with all the energy and inventiveness characteristic of our modern times, to extract the last drop of pleasure capable of being drawn from the development of its technique. Thus the serious music teacher in the public schools, where the study of music is carried on for its own sake, and not as a profession, has to contend, not only against the lack of serious purpose toward the art, but also against a positively vicious demand with reference to it; one placing school music on a par with the vaudeville show. Art must thrill the senses and astonish the mind, but it must not challenge thought. That must be reserved for the serious problem of money-getting, the keeping one's head above the whirl of competition! Art must supply the oasis in the cool shade of which the weary traveler may forget the desert of existence. This is a legitimate demand, and was never more needed than now. But art must appeal to our whole nature. The youth is not particularly longing for rest, but to be stimulated and given vision. Effort and concentration of the whole being are demanded. This is lost sight of by the purely entertaining and restful aspect of art. The difficulty is that the modern has so emptied art of its serious content and, in his effort to make it entertaining, so exaggerated its technique that, instead of being an oasis of refreshment, it is too often a wild orgy of excitement, screwing the weary nerves to a still higher tension.

In public-school music, which reaches the masses as does no other art, the true educator has an opportunity at hand with which to improve the attitude toward art, giving it a dignity that will enable it to serve our whole life, its serious moments as well as those of relaxation. Certainly the social life of the day shows the need of this deeper ministration of art. With the overcrowding of our rapidly multiplying insane asylums, and with a nervous cripple in almost every home, the opportunities that art gives as an oasis in which to get inspiration as well as rest should be taken more seriously. The very fact that it has no practical side makes it the art above all others most helpful to the modern, if properly approached.

I will suggest the principle that underlies this approach, and three ways in which it may be realized, as conditioned by the varying amount of time given to the subject in school. Take, for instance, a song in praise of spring. Instead of using it as an excuse for producing sweet sounds, use it for the purpose of expressing the pupil's love of spring. Notice the difference that this change of standpoint makes. The tone must not be merely sweet, but it must express the real joy that spring has so often awakened in the pupil's heart. To produce this, memory and imagination must be full of the thoughts and images of spring, for, without this, tone will not take its true quality. The child is not the cultivated artist, having the beautifully placed tone, capable of being produced on demand, but his tone depends upon the natural expression of right feeling, where the thought is focused on what is done rather than on the method of doing. So with the pronounciation of the words. These cannot be treated as excuses for vowel tones. They are expressive of a picture the poet has felt, and are the source of the stimulus that is exciting the pupil's imagination. Hence they must be thoughtfully uttered. So with the singing of the melody. It has its spring story to tell. Phrase and cadence must be true to the telling. Imagination, thought, memory; the brain alert with the activities of the eye, ear, and throat; the inner world of feeling all astir and alive—there is no better educative process than when music is thus treated. What opportunities for observing, for vivid imaging, for telling the truth, for delicate motor control! If all the relationships that focus in one beautiful song could be worked out in this way, the result with reference to the education of the pupil would be as great as the result in knowledge of which the poet spoke when addressing the flower in the crannied wall.

Taking self-expression as the guiding principle in music work, let us see how it may be applied, first with reference to schools, where a minimum time is given to music, say one or two short periods a week. Under such conditions songs learned practically by rote will supply the material of instruction. There will be almost no purely musical instruction, if by that we mean notation or the structure. But if the work is done as illustrated above, it will have educational value. The musical opportunities open to the pupil will be extremely limited, as judged from the standard of modern technical proficiency; but, as judged from that of musical feeling, they need not be on a plane lower than the feeling that has created the lovely folk-music of all nations. So much when the minimum time is allowed.

Second, where a little more time is given, but still not sufficient to make a daily, serious study possible, I would supplement the rote-song singing with instrumental work. It is too bad to leave our school population with this, perhaps the larger part of modern music, almost totally unrepresented in its scheme of study. If sufficiently good players are not at hand, the various mechanical attachments can do for music quite as effectively as the photograph and projection lantern do for so many other arts and sciences. To train the growing youth to an intelligent hearing of a Beethoven symphony or a Bach fugue is to widen his resources with reference to his future enjoyment of art much more than can be done with an equal amount of time spent on what is called "sight-reading." To follow sufficiently for a large satisfaction the intricacies of an invention or a fugue, or to observe the logical relationship of a symphonic form, is not as difficult for the average musical intelligence as to conceive of a chromatic harmony from its staff notation, and it leaves infinitely more in thought and content than does the latter kind of work.

Third, when the dignity of music as a serious study is realized and daily opportunity is given for careful work, the study of music as self-expression can be fully taken up. Starting its complex rhythms in the simpler and more easily understood forms in which rhythm is expressed, as in movement and language, constantly keeping self-expressive principles in mind, the teacher can lead from the expression of rhythmic thought to its further expression in tonal thought, and through this self-expressive activity conquer the complex difficulties that stress, duration, and pitch represent, both with reference to conception and definition, as well as to its expression in notation or reproduction in tone. Such a treatment of music relates it to physical culture on one side, and to English on the other. The speaking tone and what is uttered, as well as the vocal tone and the physical conditions necessary for its adequate production, must all be closely related, if music is to be fully utilized as the art of self-expression.

The principle of self-expression in art puts the stress on what is done rather than how it is done; on content rather than on technique. In doing this, it develops the individual from within out; helps him to realize himself and to add his own contribution to society. It is the very opposite of the tendency of most of our public-school work, the aim of which seems to be to shape the minds, as the tailor does our garments, according to the fashion of the times. This suppresses all originality and creative impulse in order to turn out pupils up to a uniform standard. We do not object to the standard; a common knowledge is necessary; at the same time, the individual benefits society in the degree to which he contributes something that is his own.

The constantly increasing elective courses in our colleges give an opportunity for developing the personality of the individual; but where the college is helping this principle for students who have entered its halls, it is hindering it by the constantly increasing rigidity of its entrance examinations, requiring a dead level of uniform work just at the age where the true personality is finding itself, and where, if any work on the art side of our natures is to be done, it must be done immediately. Education through music, requiring as it does expression by means of poetry, acting, and speaking, as well as through the singing-tone, develops the inner life. It will make the individuals of society differ from each other. The mental life of society, instead of resembling a vast plain, its every acre taken up with the production of the necessaries of life, will have its lesser as well as its greater peaks and summits, which catch for the dwellers on the plain the morning glow of hope or the reddening promise of sunset, and send down fresh streams of inspiration to gladden all its members, even the humblest having sufficient intelligence to drink and be refreshed.

Music, because of its impractical nature and its slight technical demand for expression, and at the same time its wide demand on body and mind for its adequate realization, proves one of the best studies for developing the inner as against the outer and formal side of life. But it will not do this unless it is taken in the spirit of self-expression, rather than that of entertainment.

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SIGHT-READING FOR NORMAL AND SUBNORMAL CHILDREN.

I SHALL endeavor to show in this paper how material may be chosen to meet the needs of both musical and unmusical children in a class, and how the simpler tasks suited to the latter may be alternated with the more complicated ones suited to the former, that they may occasionally meet on common ground.

The proportion of musical gift in a class is an index to the difficulty of the teacher's problem in keeping alive an interest in the formal work in music. The carefully graded steps which almost all systems in school use present, while theoretically good, are designed for those children whose natural love of musical expression furnishes a motive for acquiring musical knowledge. Such children give an eager and ready response to any problem within their grasp, grappling with it and solving it. For the unmusical minority, however, who are to join in the work of the class, and yet who are shut out by present limitations from musical satisfaction, what supplementary work can be found which will awaken and conserve the dawning interest in music through the necessary periods of drill? What will best avoid the discouraging obstacles which beset the way of deficient melodic sense?

Our aim is to send each child on to the secondary work with a love of musical expression and an ability to get at the meaning of the printed page; but this object will be attained only so far as the child's own motive has been aroused along the way. Parrot repetition contributes nothing to his education. On the contrary, unless he has been aroused to independent thinking, the apparent knowledge which he may gain will not remain with him. Boys and girls below normal in their musical gift come to the higher grades having performed the usual musical tasks set them through years of school work, not only without the power of handling symbols, but with a settled conviction that they never can acquire such power. This condition of mental inertia is a proof of unwise treatment. Not only has progress been in some way retarded, but development has been checked. Musical tasks, like all others, which have been unrelated to his own desire to reach an end are drudgery to the child.

The teacher's first task, then, is to find means to stir the dormant interest of the unmusical child, to present something which shall catch his attention and bring to his consciousness that which is ever present with the musically gifted child — ends to be reached worthy of effort.

Of first importance in awakening and maintaining this interest from the kindergarten up through the school is the rote-song. Learning a rote-song is common ground for all grades of ability. Properly chosen, it appeals to musical and unmusical alike. Dramatic, sweet, simple, dignified, or merry, with some connection in its subject with the work or environment of the children, its author perhaps known to them through their literary experience, or its composer one whose songs they have sung, there will be some point of connection which may be emphasized. Presentation along the line of its dramatic interest will be most liable to meet with a response from the entire class. Any possible device which enhances the literary charm of the song, creating an interest in the minds of the children, will minimize the sense of its difficulty and call forth spontaneous efforts at expression. They will themselves perceive that, in uttering the text in melodic phrases instead of in spoken tones, the object is to beautify and enrich it; if its meaning is not brought out and illuminated, the singing has lost its purpose. From this standpoint they will understand the necessity of work in enunciation, exact intonation, phrasing, and expression. That a hard, harsh tone is not the medium of expression for a pleasant thought is self-evident, and strident, overloud singing corrects itself largely by an appeal to the children's own sense of fitness. It is frequently the case that the unmusical child, unconscious as he is of limitations, enters into the singing of such a song with more energy and zest than do the others who are able to conceive its melodic difficulties. To lead him to a sense of his deficiencies, and yet retain his enthusiasm in the singing of the song, is a work of infinite tact. Where it is possible to have a special chorus of the musical children, that their efforts at expression may not be handicapped by the monotones, it seems but justice to form such a one. But the free utterance of the latter should not be discouraged, however faulty it may be. The teacher must preserve their interest at any cost of impaired result.

The first step in helping monotones to a wider range is to convince them that their voices will go as high as those of the other children. A dramatic situation suggesting a phrase to be spoken with vivacity and sweetness to someone at a distance, as "I see you!" has in its highest inflection carried an obstinately low voice up to the G above the staff. The idea is usually amusing to the child, and before the subject is left he is convinced that his voice has a wider range than he had supposed. Thereafter he sings with greater variety of pitch, and will enter with more courage upon the labor necessary to acquire correct intonation.

The thoroughly learned rote-song as subject-matter for lessons in sight-reading and notation is valuable to those pupils who can really comprehend it. The familiarity of these children with its melody creates an interest in seeing its staff-picture. They sing it from this picture with a keen observation of the movement of its intervals and sequences; fitting the syllable names to these makes the image still more vivid; and at length, having imbibed a sense of its construction, they will find themselves able to write the melody. The accomplishment of such a task gives a sense of growing power, while repetition of the process, using songs in all the keys, will lead the child, able to cope with its problems, by a natural path into a free handling of song symbols.

To force the subnormal children to follow the same path would mean an unwise expenditure of energy on the part of both teacher and pupil. Simpler tasks must be found for them, such as will contain problems appreciable to them and capable of being successfully handled. The prolonged drill necessary to bring these children up to the attainment of the others, even if it were possible to do so, would crush out the love of the song so carefully fostered and lose the musical impetus gained thereby.

Whatever the material used in leading children to read music, the same foundation is necessary—a thorough acquaintance with the syllables of the scale. Their use begins easily in the kindergarten, where the small people in learning their tone-ladder may learn at the same time its *sol-fa* names. Later, exercises for tone-placing and quality may be given by means of the scale with each syllable beautifully spoken. Various interval exercises based upon the scale ascending and descending are useful, as follows: *do, re; do, mi; do, fa; do, sol;* etc.; also *do, mi; re, fa; mi, sol; fa, la;* etc.; also in fourths, as *do, fa; re, sol;* etc.; and sixths, as *mi, do; fa, re; sol, mi,* etc. All of these may be varied and made more interesting by the occasional use of a piano accompaniment, for drill must not become drudgery. The fact that melodies, however unlike they may be, are composed of various combinations of these same scale pitches makes it evident that each pitch must possess individual qualities. To discover what these qualities are, and decide which would be best fitted to express the sense of a joyful text, and which that of a sad one; also which it would be possible to rest upon, and which would give a sense of completion to a song, etc., is a task of interest to all the children. Frequent repetition of the tone under consideration in a phrase or melody, especially ending the phrase on a given pitch, leads them to a definite sense of what it conveys. The least musical child will recognize the difference in emotional quality between the broken triads *do, mi, sol;* and *re, fa, la,* when led up to by this approach.

It has frequently been my experience that the first intervals of which a tone-deaf child can be unfailingly sure are these two broken triads. The intellectual comprehension of their meaning has seemed to awaken the tonal sense. Having found these to be thoroughly the child's own, the teacher will be able to use them as a base of operation. They will form a point of departure in the work of giving him control of other intervals, while preserving his affirmative attitude of mind toward sight-reading. Having found these broken triads in the written scale, he can himself write them in their first position on the staff, at first by the aid of the scale, afterwards from memory. The last step of this phase of his work is to take them by dictation so combined with parts of the scale as to form a tune which he can read; as, for instance:

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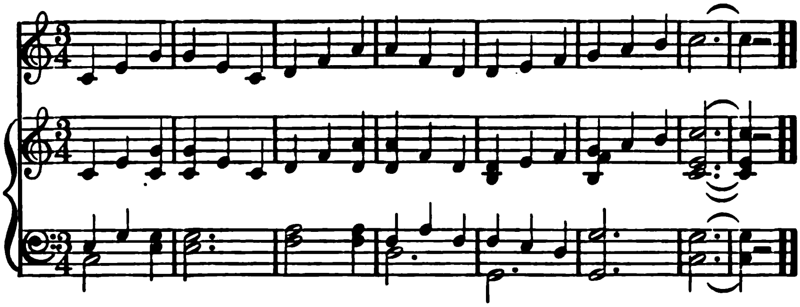
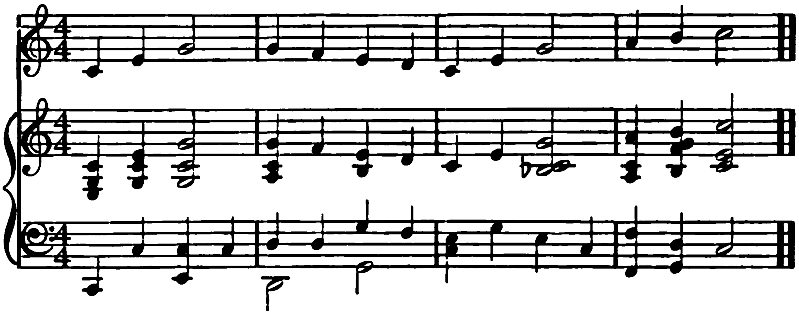


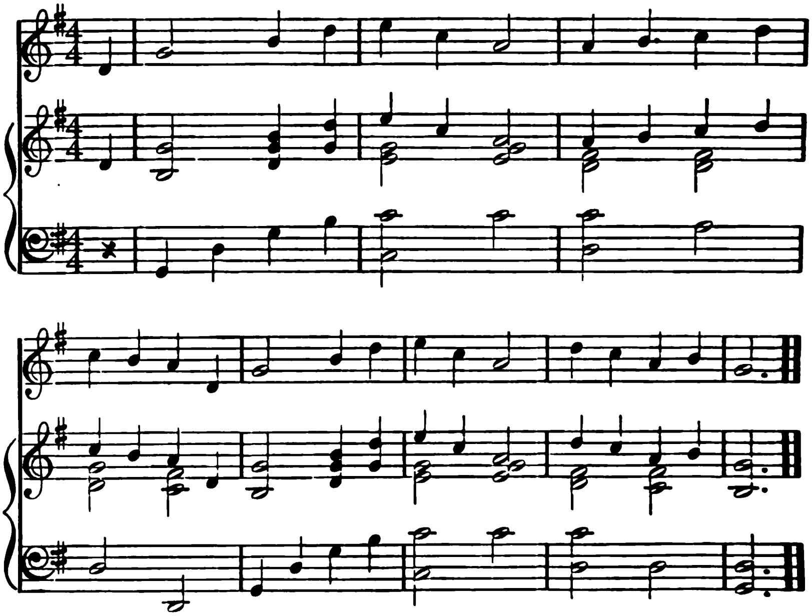
No. 2.



Simple as these melodies of necessity must be, the sympathetic teacher will put into them all the sweetness of touch and tone at her command, to enhance their value to the child and make it a matter of moment to him to have been able to sing them in tune. Such exercises, varied as far as compatible with retaining the triads which furnish him a foothold, if reverted to frequently in the course of the more difficult work of the class, will preserve the initiative of the backward children, and give a sense of musical self-respect which is most desirable.

The simplest material for leading them through the keys follows. The method of procedure in each case would be the same: first, writing the scale; second, indicating the "joyful" triad and the "sad;" third, writing these ascending and descending; and, last, reading the exercise. Difficulties would be added to the simple melody at discretion. In my experience, the children have occasionally wished to give words to these, and have collected them in their practice-books under the title of "Half-Hour Songs." The practice in notation which this included has been useful.

No. 3.



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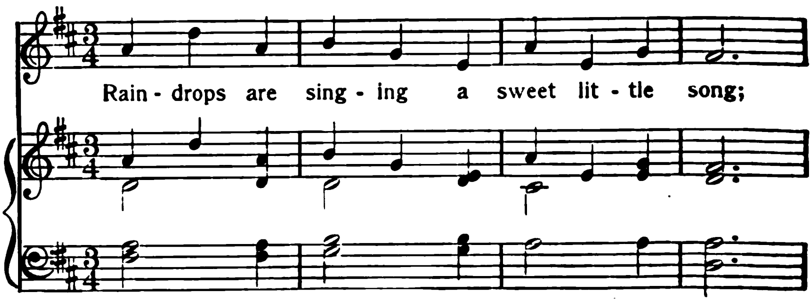
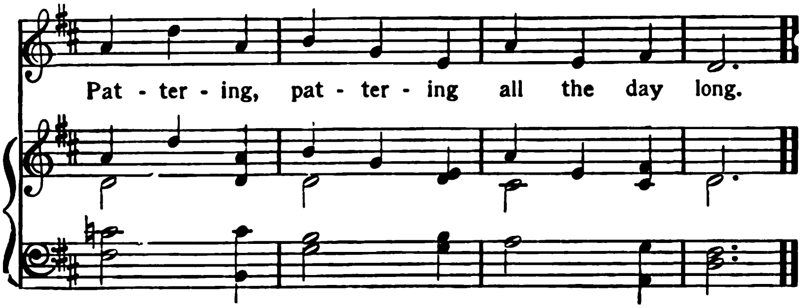
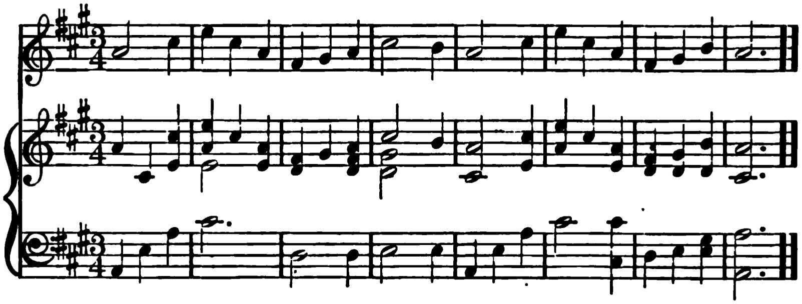



Pat - ter - ing, pat - ter - ing all the day long.

No. 5.



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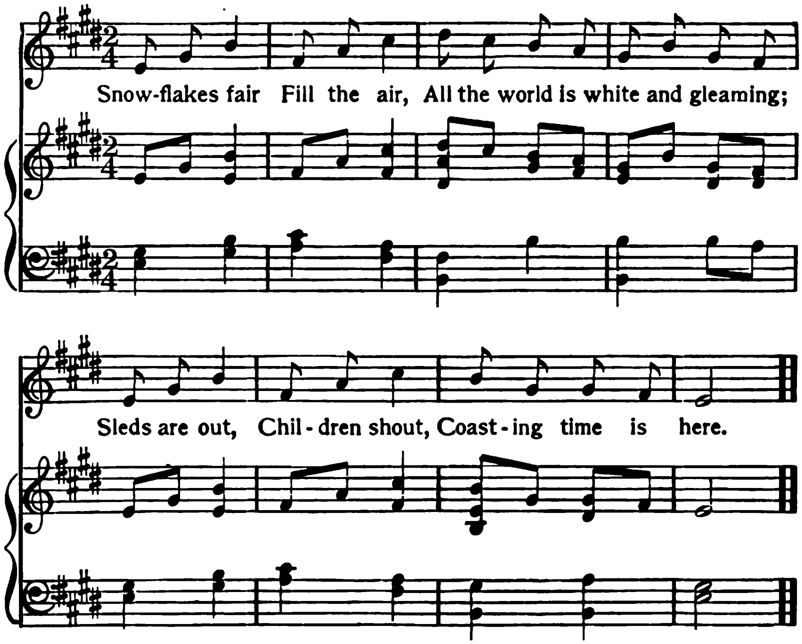
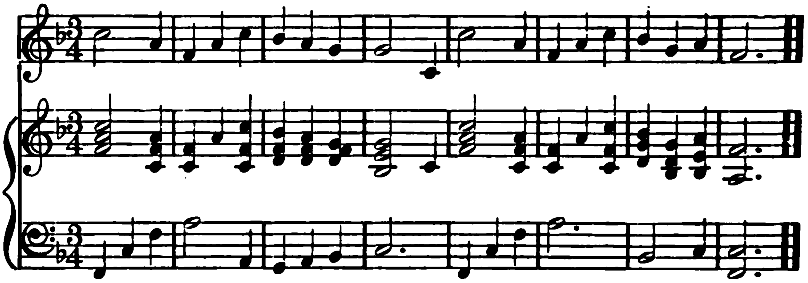

Snow-flakes fair Fill the air, All the world is white and gleaming;
Sleds are out, Chil - dren shout, Coast - ing time is here.

No. 7.



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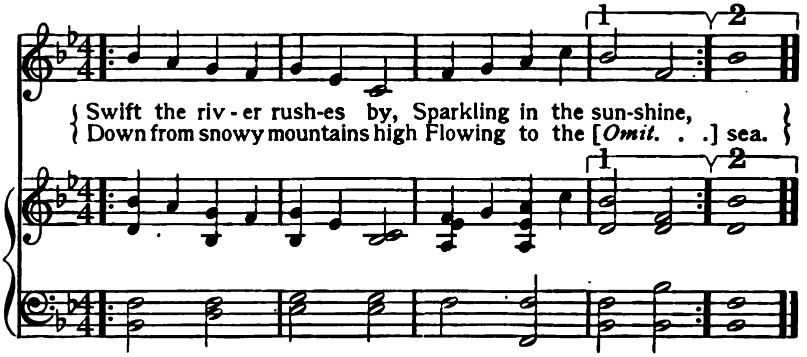
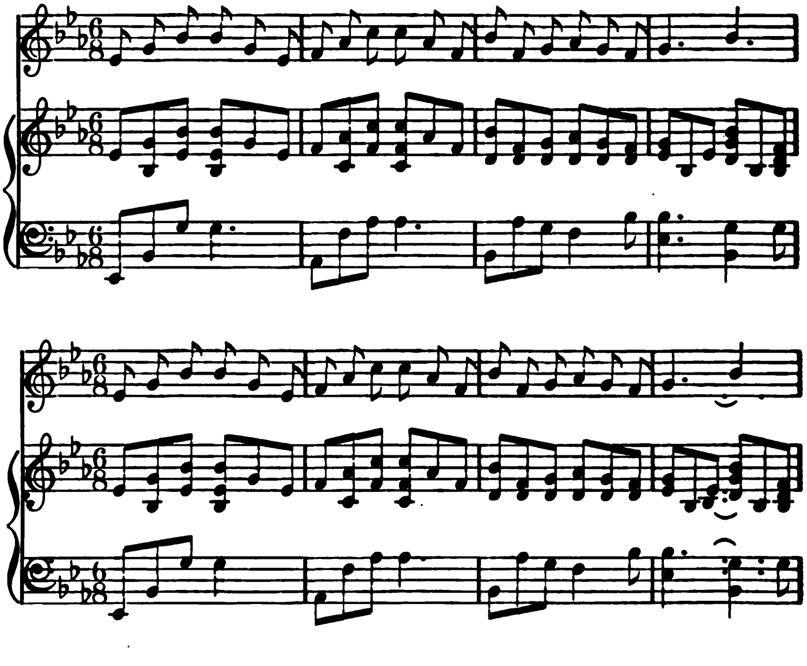

Swift the riv - er rush-es by, Sparkling in the sun-shine,
Down from snowy mountains high Flowing to the [*Omit.* . .] sea.

No. 9.



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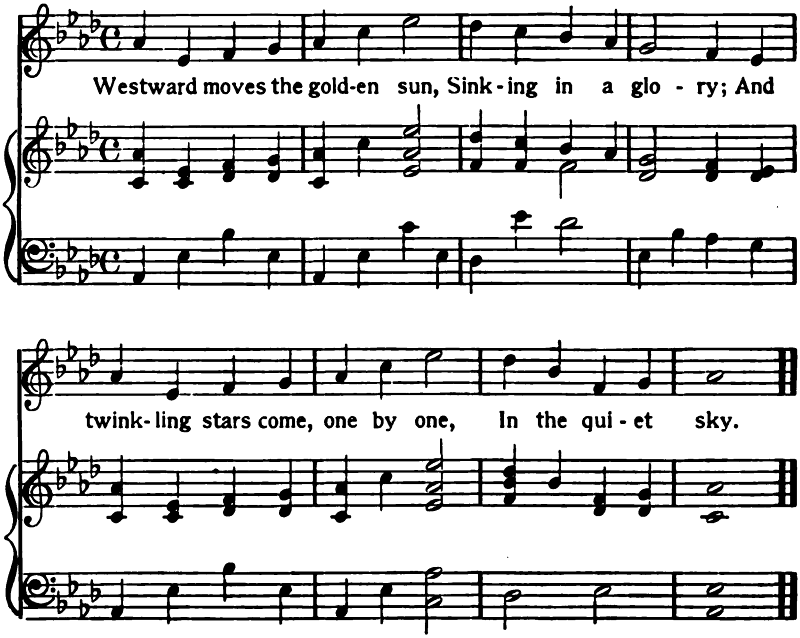
Westward moves the gold-en sun, Sink-ing in a glo - ry; And
twink-ling stars come, one by one, In the qui-et sky.

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If language is to be taught as an art, it follows that a most important rôle must be assigned to habit. All arts may be viewed as good habits in some special line of constructive activity, the language arts no less than any other. The elementary teacher cannot too often say to herself that her pupil can learn good English only by reading, writing, and speaking good English until it has become a habitual reaction.

One of the most valuable of the recent contributions to the psychology and pedagogy of habit is to be found in Mr. Frank C. Bostock's book, *The Training of Wild Animals.* The chapters called "The Wild Animal's Kindergarten" and "The Principles of Training" are full of facts highly suggestive to the trainer of little human animals. Says Mr. Bostock:

> In time the trained animal becomes so accustomed to performing that when he sees the paraphernalia of his performance he knows exactly what is expected of him, and does it naturally and readily. The successful performance of all trained animals depends on this almost instinctive following of long-accustomed habit. . . . . No animal is ever allowed to backslide. Each thing done one day must be done the next day in exactly the same way. . . . . This is the reason that in every animal act the trainer positively insists upon perfect adherence to the regular formula. Such is the force of habit that laxity today means a desire for laxity tomorrow at the same place and in the same way, and laxity in one small detail will breed the tendency for it, which will then in all probability spread, and in a short time affect the whole performance. . . . . If an animal is sent to the right side on entering the arena the first day, he must be sent to the right side every day thereafter.

So strongly established does habit become that accidents have been averted by taking advantage of long-continued associations. In one case a lion, in the act of devouring his trainer, was checked by the presence of mind of another trainer who fired his revolver twice near the lion's ear — the long-established signal for the lion's pose in the arena. Habit was stronger than rage: the lion dropped his captive and fell into "position."

If the teacher in the elementary school could realize that her most important function is that of "trainer," not "expounder;" if she could sincerely believe that insistence upon accurate "doing" brings as good results in the primary school as it does in the "animal" kindergarten," the results of language-teaching would be much better than they are at present. The work of training is a slow one, but in the end it justifies the tediousness of the process.

Oral discussion of class work — whether of nature-study, manual work, history, or arithmetic — the reading of interesting books, and even the copying of stories and poems worth remembering — these are some of the ways by which good habits in the use of language may be impressed upon the brain-cells. The child who has habitually written and spoken the verb-form "have seen" is more likely to give his perfect tense correctly than the child who has merely learned the conjugation of the verb. Hence the value of such a seemingly mechanical exercise as the mere copying of stories and poems. In *Cuore,* that beautiful record of the heart of an Italian schoolboy, the children copy every month a story embodying some ethical ideal. Even leaving out of the question the ethical benefit derived, the device is an excellent one for drill in sentence-structure, punctuation, capitalization, and collocation of words. The child's interest in the story deepens the impression made by the details of the language.

I believe that English is best taught when it is subordinated to some interest that is strong within the child. Is the boy interested in making little sailboats? Let him talk and write then, by all means, about sailboats; and let him think that he is giving information about sailboats rather than learning to speak and write English. As a child is best encouraged to walk, not by having his attention directed to the muscles involved in the process, but by having a definite goal before him — an apple or a candle — so, a little later, he is best taught English by having some extrinsic end presented: in reading, the outcome of the story; in talking and writing, the opportunity to tell others of a fact interesting to himself.

If I may revert to the psychology of animal-training, I should like to call attention to the extreme care exercised by the trainer in the determination of the order in which new accomplishments are taught. If the elementary teacher is to be successful in establishing good habits in her pupil in the use of English, the more difficult tricks — to use the trainers' vocabulary — must not come first. In the natural process of development, both ontogenetic and phylogenetic, the art of oral speech long precedes the arts of reading and writing. Much time would in the end be saved if the first year or two of school were devoted to the learning of English as a spoken language. The resultant habituation to proper oral forms and the acquisition of a stock of fairly clear concepts would greatly lessen the labor of learning to interpret mystic black marks on a white page a year or two later.

Another consideration in connection with the order or sequence of the establishment of habits in English is that of the order in which the child's concepts develop. The anthropologists tell us of primitive races whose vocabularies include words for "dog's tail," sheep's tail," "bird's tail," but no word for "tail." The child, like the race, arrives at the more generic concepts very slowly; and it is therefore desirable that the vocabularies of the early reading-books include not too many words which are likely to be meaningless to the child. *Gradation* should be the motto in language-teaching.

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THE HISTORY OF THE VERNACULAR IN EDUCATION.

II.

WHILE the vernacular and its literature, especially among the learned classes, were threatened with destruction by the first shock of contact with the newly discovered classics, there were forces at work which tended to keep them alive and to make them ultimately reap advantage from that which at first seemed to be their doom. After a shorter or longer period of decline, the vernacular experienced a period of renascence in all the countries of Europe. In Italy, where the native idioms lay closer to the Latin, the decline of the vernacular was most marked and its period of longer duration. But even here there were subtle and pervading general influences at work in favor of the vernacular. If scholars looked down with contempt upon the vernacular and its use, still it had become rooted among the common people. It was a living tongue as over against a dead one, and as such possessed a superior power of absorption. The Latin phrases introduced into the Italian dialects by scholars could not take root among the people until they meant something to them, and thus they could never become among the common people such an external part of the language as among scholars. They could not swamp the native idiom; for they first had to adapt themselves to it in an organic fashion so that they functioned in it. Thus by a process of selection the native idiom profited at the expense of the Latin, and quite naturally at just such points as it most needed supplementation in respect to vocabulary, polish, or grace. But the Latin element came in not in an integral fashion, but only by yielding to the genius of the Italian idiom. It was Italianized rather than the Italian becoming Latinized. Scholars found out that if they wanted to be heard by the common people, Latin vocabulary and imitation of Latin structure and style did not count for much. They must digest their classics, assimilate them, and develop new blood and tissue vitally and organically one with the vernacular which they proposed to use. What is said with reference to the development of the vernacular under the Humanistic impulse in Italy may be applied with varying emphasis to the other European countries subject to the influence of the Revival of Learning.

The renascence of the Italian vernacular did not begin with the scholars. The learned had been drawn away to the study of the classics, and they wrote for a more select and a more universally distributed circle of readers than could be reached through any one mother-tongue. But the people still loved their songs and stories; poetry, music, and devotion are interests that do not wane. Obscure writers, with little or inadequate training in the classics, appealed to the popular interests and attempted to meet the popular demand. Yet this humble class of writers drew gradually into their circle those of greater training and ability.

The gap between the scholars and the people, between the learned and the unlearned, so far as concerns the field of literature, was again beginning to narrow, and the time was drawing nigh when scholarship should not be ashamed to express itself in the mother-tongue. In addition to the pressure from below, that time was hastened by another co-operating factor, namely, the patriotic impulse.

Social and political influences cannot be ignored in the literary and educational history of a people. At Florence, Ferrara, and Naples there was a court life which gave unity to the popular consciousness which centered in those places. At Naples and at Ferrara feudalism had taken firmer root than in most other places in Italy. There the literature of chivalry lingered. The tales of Charlemagne and of King Arthur served as a strong central core of the popular literature. It was not so easily overwhelmed by the first tidal wave of Humanism, and could more easily obey the impulse of the strong feeling of civic unity. At Florence, under the influence of Lorenzo de' Medici, the cause of the vernacular received a strong forward impulse. Lorenzo himself employed the vernacular, yet with an apology for its "lowness, incapacity, and unworthiness to deal with high themes or grave material."[16]

[16] SYMONDS, *Renaissance in Italy,* "Italian Literature," Vol. I, p. 234.

With Lorenzo de' Medici Humanism advances under the impulse of a new ideal. The discipline and the fine sense of literary appreciation which came from the study of the classical models were made instruments, not of slavish imitation, but of positive reconstruction. Scholars begin to see that in order to produce a work of art the medium does not necessarily have to be that in which the great works of art have been produced in the past. The medium is something which can be molded to use, provided there is a clear grasp of literary principles. Under the spirit of the new Humanism, the prose and the poetry of the Italian language are transformed and beautified by the application of the ideal of classic form. The literature and the language are no longer Ferrarese, Neapolitan, nor Tuscan, but Italian; no longer local, but national. The gulf between the scholar and the layman narrows down until the two classes of literary interests merge once more. The popular tongue and the popular theme resume their place in the world of literature, only on a higher plane of art. Poets of the first rank took up the material of the popular literature, molded it in accordance with the principles of art, and gave it out in the form of works bearing the stamp of culture.[17] With Ariosto and Machiavelli the stage had been reached in which there was certainly no longer any occasion for, or thought of, apology for the use of the vulgar tongue. Its literary position was thoroughly established.

In England art had achieved distinction in the vernacular through the genius of Chaucer. But for a century and a half from his time the vernacular literature languished. One reason for this was undoubtedly the condition of the English language. English, more than any other tongue, is a language whose vocabulary is filled with borrowed words. In the fifteenth century it was suffering especially from a plethora of undigested material, which made it more or less of a mosaic.[18] The inherent laws of its structure had not yet reached maturity, and they groaned under the task of plowing their way through the heterogeneity of its vocabulary. Yet, during this period, English scholars cherished the study of the classics,[19] and through them were educating a higher capacity for culture. But the gap between scholarship and the vernacular seems never to have been so wide as in Italy. In fact, the stream of Humanistic influence came to England from derived sources as well as from the original.

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[17] *Ibid.*, p. 427.

[18] See SAINTSBURY, *The Earlier Renaissance*, chap. 4.

From the fact of this twofold source of Humanistic culture in England, it happened that two men so wide apart in their type of training as Milton and Shakespeare could both be representative of the renascence of the vernacular literature. Milton, drawing directly on the original classical sources, brought the ideal of classical beauty and perfection down into the vernacular, fusing both elements into an indissoluble whole; "he was classical without loss of spontaneity or freshness." Shakespeare, on the other hand, drank in the spirit of the Renaissance as it had manifested itself in the stimulus which it everywhere gave to a higher type of art; and, through the assimilation of this ideal, he brought up the vernacular literature to the classical level. The tremendous literary activity of the Elizabethan period is significant of the supremacy of the mother-tongue henceforth in the literature of England.

In bringing about this literary supremacy of the vernacular in England there is still another factor that ought not to be overlooked, namely, the publication of the King James, or Authorized, version of the Bible, in 1611. The linguistic principle common to both Shakespeare and the English Bible was that of starting with the vernacular, and, working under the inspiration of superior models, bringing up the vernacular, by the selection of those elements which are already prepared to function anew, to a new level of art. Thus the linguistic laws of the mother-tongue are not violated by the imposition of a foreign structure, however superior that may be within its own field.

In France at the end of the Middge Ages poetry had received considerable development, and the lighter forms of narrative prose were beginning to be cultivated. But the language was as yet wholly inadequate to the expression of more serious and reflective thought.

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[19] *Cambridge Modern History*, Vol. I, "The Renaissance," p. 491.

The problem of the sixteenth and seventeenth centuries was to take up this language which was now in a transitional stage on the way from the inflectional to the analytic form and make of it an adequate vehicle for the expression of any and every kind of thought.

One important factor in the perfection of the French vernacular was the movement inaugurated by a group of writers called the Pleiade. The Humanistic movement was consciously diverted from its original channel and made contributory to the cause of the vernacular. The study of Latin and Greek was prosecuted for the sake of finding what these languages had that could be carried away and used in the enrichment of the language and literature of the mother-tongue. Long and persistent practice in the writing of French was conducted under the ideals of art discoverable in the best authors, whether Greek, Latin, Italian, Spanish, or any other language.[20] With Ronsard and his confrères the study of the classics became a means to the perfection of the vernacular rather than an end in itself. The function of this sort of work cannot be easily overestimated; yet it is easy to see that, after all, such a movement may not come into the closest and most vital relation to the life of the people, and hence may diverge slightly from the true genius of the native tongue. It needs to be supplemented by the work of men who have an overmastering message to convey to the people. The perfection of the language cannot be reached until it has been made the medium of expression for the ideas of such men as Calvin, Descartes, and Pascal.

Calvin's vocabulary is rich and varied, but his words are drawn largely from the mother-tongue. They are words instinct with the life of the vernacular — words either Gallic, or, if from the Latin, preferably those which have gained the quality and tang of the native idiom through their having already functioned in it. Yet at the same time he is strongly under the influence of classicism. The ancient languages have a contribution to make to the modern French through his agency. The French tongue was especially defective in the treatment of clausal relations. Its structure was loose and ill adapted to the close and logical sequence of thought demanded in argument. Now, Calvin was a close thinker, and he was anxious that his thoughts should reach the people. He chose the most vital words that they used, but a loose and conversational array of these, no matter how rich in meaning or how delicately susceptible of expressing fine distinctions, was inadequate to the expression of his thought. He needed a structure the parts of which made up a close-fitting and organic unity. The Latin language afforded models of almost logical perfection in the matter of sentence structure, in the delicate adjustment of independent and subordinate relations within one finely balanced whole. Calvin succeeded, without undue violence to the spirit of the mother-tongue, in introducing into it something of the power of expressing clausal relations with which he was familiar in Latin. The long sentence, so often necessary in the expression of complex trains of thought, became possible, and that too without violation of clearness and simplicity.

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[20] SAINTSBURY, *Short History of French Literature*, p. 199.

With the work of the Ronsardists and Calvin, the French language is in the process of taking its position as a literary tongue. It is not a far reach to Descartes, Corneille, and Pascal, under whom the French vernacular won its position of complete literary independence, yielding alike to the demands of the highest reaches of philosophic and scientific thought, and to the subtlest and most refined poetic sense.

The German language as a tool of literature was even more defective in the sixteenth century than the French. Practically everything of consequence was written in Latin. Translations of the Bible, in whole or in part, together with other religious and devotional literature in the mother-tongue, circulated to a considerable extent. But with the advent of the Reformation there was brought over to the cause of the vernacular a powerful and interested advocate in the person of Luther. Luther's translation of the Bible, like the English version, took advantage of those forms of speech which had already found acceptance with the people. Yet his task was more arduous than that of his English brethren, because the language was in a more chaotic condition.

Luther was a prolific writer and speaker. He, like Calvin, was burdened with a great message which must be brought to the people. If the language was not yet adequate to this task, if its structure was defective, then he took up the obdurate instrument of expression and twisted it and turned it until it would yield to his will. His ideas were vigorous and strong, and they had to find expression in a form which was vigorous and strong. To be sure, the forms which he wrought out were not always elegant and refined; but they were pretty apt to be suitable to the thought which he wished to convey. His terse and strong and homely thought plowed through the resisting material and left its furrows there as a guide to others who wished to go the same way. He almost re-created the German language, and he prepared the way for its more refined as well as its more vigorous use as an instrument of literary, scientific, and philosophic expression.[21]

Luther, Calvin, and Descartes illustrate the power of function in determining structure. Too often we ignore the significance of thought itself as a factor in determining form. The history of the vernacular teaches us that the language process goes on within a situation in which thought demands a medium of expression. The message, the desire to communicate, is one of the chief interacting factors in the development of language. In general, vigor of language, refinement of diction, elegance of style, can come into being only where thought possesses the same qualities. While, on the one hand, thought is dependent on a proper medium, on the other hand, the medium of expression is itself a creation and reflection of thought.

By the seventeenth century (earlier in Italy) the literary position of the vernacular was established generally throughout Europe. But, while the vernacular began to reappear in the sixteenth century stronger than ever before to perform the function of a real language, we find at the same time, as we have already seen, Latin everywhere dominating the schools. That this should be the case during the period of the gross inadequacy of the mother-tongue is not a matter of surprise. But that Latin should persist as the chief instrument and end of education for centuries after the strength of the vernacular has been manifested in the realm of literature does seem at first thought a just ground for astonishment. But we must bear in mind that the school is necessarily a conservative institution. It has to stand for the highest ideals of culture and discipline. It does not at once adjust itself to that which is new; or, if it does, it is the victim of innumerable fads. The new has to be tested, proved, and found worthy. This was all the more true when the school stood in a position of greater isolation from the stream of popular and practical life than it does today — when the ideal of education was formal discipline and its end was not so much to make citizens of the many as to make scholars of the few. When the mother-tongue had come into wide use as an instrument of literary activity and its literary position was more or less firmly established, still it was not welcomed in the schools of the day. The vernacular could not yet show that its masterpieces furnished literary models which attained that degree of perfection which characterized those already in use in the schoolroom; and the native tongue was not regarded as an equal to the Latin as an instrument of mental discipline. On the basis of these two principles, Latin prolonged its monopoly of the curriculum beyond the period of its necessity. The cause of Latin was still further strengthened by the fact that men who wrote books, and who thought that their ideas were really valuable, wanted them to reach the world in a form which was more permanent and universal than the rapidly changing and numerous native idioms.

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[21] See SAINTSBURY, *The Earlier Renaissance*, chap. 5; RUSSELL, *German Higher Schools*, chap. 2; *Cambridge Modern History*, Vol. I, "The Renaissance," pp. 640 ff.

Notwithstanding the strong position of Latin in the schools of the sixteenth century, there was a growing feeling of discontent with the reigning Humanistic education. Even representative classical scholars like Alberti, Erasmus, and Melancthon recognized its insufficiency. Geography, mathematics, astronomy, and natural science, the studies by which the Humanists themselves would supplement the training in Latin and Greek, while they were not at that time taught in the vernacular, were of such a nature that they might be so taught. *Real*[22] studies in the schools strengthen any existing demand that there may be for the use of the mother-tongue.

In France, Rabelais and Montaigne were satirizing and ridiculing current education, and creating sentiment in favor of training which should be more practical and closer in touch with the needs of life. Likewise the English schoolmaster and scholar, Richard Mulcaster, in the latter part of the sixteenth century, was protesting against the exclusive use of the classical languages in education.

While undoubtedly a part of the defect of the classical education was in the formal methods of study, yet much also was due to its exclusiveness, or lack of breadth. The remedy which Montaigne suggested was in the line of broadening the curriculum. He urged the importance of history, and laid stress on modern languages taking precedence of Latin and Greek.

This bringing of the vernacular definitely to the foreground in education is indicative of a new ideal that is shaping itself in men's minds. It is the forecry in a long struggle of the ***Realien*** for recognition and ultimate functioning in a well-rounded curriculum which shall meet the needs of the many as over against the few.

The slowness with which the schools moved in the matter of correcting the evils in the traditional methods of education is shown by the fact that the protests which began to appear with Alberti in the fifteenth century are still to be heard in the seventeenth, and even down into the eighteenth, century. Francis Bacon (1561-1626) made vigorous thrusts at Latin and Greek as the sole exponents of culture. But more significant for the cause of the vernacular than this was the work which he did in formulating the laws of induction. Though his work in this respect was imperfect, yet it starts the movement which is ultimately to ground the sciences in their claim to recognition in the curriculum. This kind of enrichment of the course of study always contributes strength to the movement in favor of the mother-tongue. The Port Royalists, De Saci and Guyot, were also claiming that the study of Latin as conducted was a positive injury to those who wished to use their mother-tongue well.[23]

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[22] The term "real" is used in this paper in its German sense.

This general dissatisfaction with Latin and Greek as the sole educational vehicles, with corresponding stress laid on the importance of the vernacular, is partly traceable to an increased value placed upon the *Realien*. It is an age of discovery, invention, and the beginnings of scientific formulation. The world has broadened and deepened with great rapidity. The force of tradition and authority is being broken. There is something new being developed in the way of knowledge which is as worthy of being studied and taught as that which has been handed down by the ancients. The activities of the people of Europe, the experiences of life, have created a demand for, and set a standard of value upon, scientific, commercial, geographical, and historical fact. A new view of education is being developed. There is a groping after, a feeling for, some position in education for these new elements of knowledge which are demanded by the exigencies of the new and changed conditions of life. The isolation of the school is more keenly felt than it was when all of learning was summed up in letters and this learning was of use only to the few. The school is now out of joint with social conditions. There is tension, dissatisfaction, a problem to be defined. The focus of attention shifts to and fro between the disturbing element of the *Realien* and the old, fixed, and customary structure of the classics. With this shifting of attention to and fro there is corresponding confusion, discomfort, discontent. Pending solution, this discontent works two ways to the advantage of the cause of the vernacular. When it views the Latin as unsatisfactory, by the emphasis of reaction it throws stress upon the vernacular. When it operates in the direction of placing the *Realien* in the curriculum, it carries with it in this same movement the mother-tongue as the most suitable instrument for the imparting of instruction. The ideal in these is no longer that of cultivating style or of teaching eloquence; hence the superiority of Latin vanishes at a single stroke. In this way I think we can account for the discontent which, we have seen, prevailed with the reigning Humanistic system of education, and at the same time the stress which the critics laid upon the vernacular. This discontent was the beginning of a movement which should not stop with mere protest, but was to develop into measures of practical reform.

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[23] CADET, *Port Royal Education*, pp. 8 and 163.

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[It is hoped that Mr. Miller will extend these articles, bringing them down to the present day, and publish them in book form.— E. F. Y.]

AN EXPERIMENT IN TEXTILES.

THE work about to be described was the making of hot-dish holders by eight children of the second grade, aged six to eight years. The reason why it was made part of the school program was that it happened to be a problem in the social life of the children — one which they saw and felt, and one which made direct appeal to them without explanation or "presentation" by the teacher.

In planning it, the teacher's aims were (1) to give the children so much freedom that the conditions of work should present their own problems; (2) so to organize materials and processes as to give the greatest possible opportunity for initiation and originality; (3) to offer for choice such materials and processes as would bring the children in contact with suggestive and educative correlated subjects.

The children had been cooking out-of-doors in ovens which they had built for themselves, and in handling hot stones and utensils had felt the need of holders. Recognition of this need gave motive for all the work done, and made of it a social occupation rather than a "lesson in textiles." The children were asked what material they considered most suitable for the holders. This question made evident to both children and teacher the fact that they had little conscious knowledge of the qualities of fabrics, so they were given pieces of all kinds and qualities of textiles, with the idea of choosing the one best fitted to their purpose. During the examination and discussion of materials it was agreed that the one selected should be thick, and slow to burn. Examples of silk, wool, cotton, and linen were all selected because of their weight. Recognition of these different fabrics was then taught the children, and they were directed to compare them as to feel, smoothness, roughness, softness, and hardness, and as to luster or dulness. After some discussion, each child wrote on the blackboard the name of the fabric he considered best for the holder. As the words "cotton," "linen," "silk," and "wool" were all new, they had to be taught and, till they were learned, the lesson was one in writing and spelling. Each child's written vote was read and discussed by every other child, not merely for the sake of teaching reading, writing, and spelling, but because the practice of record-keeping even in its simplest form gave definiteness to the work and satisfied a certain *business sense,* which is strong in children of seven or eight years. So long as records were useful in the working out of problems, the teacher recognized the earliest need of a record and gave to the children the means of making one. This need, followed step by step, helped to give the children, almost unconsciously, the power of writing, which became to them a means of expression and a help to clearer thinking. None of the children in this case learned to write any one of the four words so that they could reproduce it without help, but many of them learned to recognize them at sight. The exercise was purposely made short, and the learning of words was not emphasized, for the teacher depended upon (1) *interest in the subject,* (2) *vividness of imagery,* and (3) *constant recurrence of the subject of thought* for the ultimate perfect learning of the new words. The few words written were a record sufficient to show difference of opinion as to the material to be selected. As the various fabrics were equally heavy and thick, they were tested as to their readiness to burn. Thus wool was chosen as least combustible, and so most useful for their purpose. When the material was decided upon, the teacher proposed to the children that they should make some kind of a fabric for themselves rather than use the manufactured cloth. The prospect of doing a new kind of thing seemed promising, and the plan was unanimously accepted.

They were shown a fleece as the source of wool, and by touch discovered that the softest and thickest locks of wool were upon the back, shoulders, and sides of the sheep, and that the poorer quality was upon the breast and legs. For experiments in the making of yarn they were given locks of unwashed wool of several varieties, and they at once loosened the fibers, pulled them more or less straight, and twisted them together into a coarse, uneven thread. The making of yarn in this way proved interesting, and set the children to watching each other's results and comparing processes. At best it was seen to be slow.

This group of children had worked out some of the simple problems in the history of primitive peoples, and had spent three months in stories and lessons about the tree-men, cave-men, Indians, and Eskimos. They had had games, experiments, stories, and pictures to help in the making of theories as to origins of things and processes, such as the making of stone implements, fire, and pottery, and the preparation of food and clothing. The activities of the hunting stage in history had been, in experience or story, part of the school life. But at the time spinning was begun the history lessons moved from hunter life into the domestication of animals, herding, and the beginnings of shepherd life. While the children were twisting the wool fibers with their fingers, they were inventing theories as to how the same process was carried on by the earliest spinners. Upon deciding that they probably wound their thread upon a twig, the children were given little sticks upon which to wind theirs. The twisting threads set the stick whirling, and so by degrees led to the idea of the spindle. The children then made spindles of wood, and by this means spun a few yards of coarse, crude yarn.

They objected to the oil and dirt in the wool, and proposed washing it with soap. Those who chose hot water cleaned theirs most easily, and those who worked the wool too energetically discovered for the class the process of felting. Wool with all oil removed was found to spin less easily, so a little olive oil was used as a substitute for the natural oil, and the spinning was again made easier. Washing the wool, too, had matted it even in the cases where it was not fully felted, so hand-cards for combing and straightening the fibers were suggested. This simplified the process and introduced the children to a new stage in the evolution of textile machinery. At this point they were shown spinning-wheels under the hands of expert spinners, and should have been allowed to use the wheels, but that at the time was impossible. Other children of their age have used the large wool-wheel with a fair degree of success.

By the time each child had spun his few yards of yarn it was agreed that the holders would be needed before sufficient yarn could be spun in this slow way. So the little already made was quickly woven into tiny rugs and taken to the playhouses at home.

A heavy, twisted, manufactured yarn was found for the holders, and, as it was undyed, the question of color was the first to be settled. The children were confident that dyeing the skeins would be a simple matter, and they brought for trial colored vegetables—roots, fruits, and berries—which, after free experimenting, all proved unsuccessful. These failures prepared the minds of the children for the idea of mordants, and when the practical effect of these was shown, the dyeing became more satisfactory.

With the laboratory experiments each child was taught to write some kind of a record, however simple. The one following is among the best, and was written after the series of dyeing lessons was finished. In the planning and discussion preparatory to this new ideas had been noted on the blackboard, and fragmentary records had been made, as indicated in the first lesson.

> We dyed the wool for the holders. We first tried berries, willow bark, and colored chalk for dyes, but the wool did not hold the dyes. We tried an acid then an alkalai in the dye. The colors were not pretty and the dyes were not fast. Then we used logwood, fustic, madder, cochineal, and indigo for dyes. We boiled the wool in the mordant, then in the dye. I made old gold dye from fustic. Cochineal made crimson dye, madder red, logwood black. The indigo should have been blue, but it was gray.

When a sufficient number of fairly successful skeins had been dyed, combinations of two colors were made by each child, and with these two skeins—one for warp, and one for filling—preparations were made for weaving the holders. In making the first little rug of their own yarn the children felt the necessity for some kind of a frame for stretching and holding firm the interlacing threads, and had suggested various simple devices for the purpose. As a means of teaching the simplest elements in weaving, the teacher showed the class how to sew warp onto a pasteboard card and darn the filling in and out with a long needle. Directions were then given, and each prepared a card for his own use. The problem was the drawing of a six-inch square in the center of a piece of heavy pasteboard; pointing off the edges of the square into quarter inches, and piercing through the points by means of a coarse darning needle. Through these perforations the heavy wool yarn was sewed in parallel lines on both sides of the card, making a double warp. Across one side of this warp, through the card, then across the other side of the warp, and back again, the filling thread was woven, or rather darned, leaving open one edge of the double warp, so that it could be removed from the pasteboard when finished. Both warp and filling threads were easily kept parallel, because the perforations in the card had been accurately made and were placed at exactly opposite points in the edges of the rectangle. A plain weave—that is, "one thread over and one down"—was all that was attempted by most of the children, but a few succeeded with a basket weave of "two over and two under."

The diagonal was not attempted in this first weaving. The card was cut away from the holder when the weaving was done, the edges of the open side were overhanded together, and the holder was finished as a thick, double, coarsely woven fabric of two contrasting colors, just six inches square.

Some time after the making of these holders it was proposed to the children that they weave rugs for the playhouses of the first-grade children. The suggestion met with enthusiastic approval. In planning this new venture they were asked how they could lessen the work in weaving, and what it was that took so much time in the making of the holders. One child said that it was "going under and over all the time with the needle." They were then asked to think of ways to lessen this labor, and, after much discussion and trial with material for constant experiment, they did work out the primitive idea of making a shed by means of two sticks each to lift alternate threads of the warp. The alternate raising and lowering of a set of warp threads made it necessary to abandon the card as a loom, and quickly following came the idea of tying the warp to two fixed beams with space above and below. At this point they were shown the model of a wooden frame which had been made to combine all the points they had worked out, but with string substituted for one of the harness sticks. This was used as a pattern, and from it each child made a loom for his own use.

There was more dyeing of wool, this time single Germantown yarn. Combinations of three colors were made by each one, and with these colors designs for making the rugs were drawn and painted. The planning of pattern had to be directed by the teacher toward the making of simple geometrical forms possible in primitive weaving. They were changed as little as necessary, but were set in order and afterwards drawn the exact size planned for the rug.

White cotton carpet warp was tied on the beams of the newly made looms, and weaving began. Longer needles or shuttles were asked for and made in the shop. These were, however, cast aside soon for darning needles and packers' needles, because these latter were found more convenient in the working in of patterns. After the weaving was well under way, there was a visit to the Field Museum to look at Navajo weaving.

The little rugs, when finished and fringed, reached the proportions of about seven by ten inches, and showed a pattern worked in two or three colors, filling effect. They were finally given to the children of the first grade and used in their playhouses.

To give their work as much meaning as possible, the children were led to think of the way in which other people had done the same thing which they were doing. Much time and thought were spent on all the textile experiences of primitive peoples, because these could be understood and perhaps used by the children. The ancient Hebrews and present-day Arabs were chosen as illustrating simply the relation of the herding, weaving, and trading processes. The habits of their lives were told by means of stories and pictures. Bible stories of patriarchal life — Abraham, Isaac, Jacob, and Joseph — were read, told, and retold. Grassy plains, rolling hills, deserts, and oases were modeled on the sand-table by teacher and children as a necessary part of the history stories.

Toward the end of the time in which this work was being done the class decided to tell the stories to the children of other classes in the morning exercise. In planning the exercise they wrote such suggestions as this:

"I think it would be nice to make a little desert to show the children. We must have sand and rock, a tent and camels and flocks, and a well."

"We ought to have a mother and little girl weaving in front of the tent."

"We ought to tell how the shepherds drive their flocks to the grassy places in the desert. They travel at night because the days are hot. People in Arabia do not eat the same things we do. They eat dates and bread and cheese. They drink goats' milk. They grind their grain in a stone bowl. They do not have many dishes."

At the morning exercise the model of the desert was shown and explained by one of the children. He told about the wanderings of shepherds, their food, clothing, and customs. An eastern rug was shown, and its design and weave were explained. Then followed the stories of Abraham, Isaac, and Jacob. The children who told these stories had practiced them after carefully writing them. One is given as illustrative of the writing:

Abraham heard the voice of the Lord telling him to take his wife Sara, his nephew Lot, and all his herds, and journey to the land of Canaan. And the Lord promised Abraham that that land should belong to him and his sons forever. Abraham felt very badly because he had no sons. But the Lord promised him that his sons should be as many as the stars of heaven and as the sands of the sea.

So Abraham took his wife Sara and his nephew Lot, and all his flocks, and traveled to the land of Canaan. He traveled by night and followed the stars.

One day, as Abraham sat at his tent door, he saw three strangers appear. He went to meet them and invited them to enter his tent. He told his wife Sara to take quickly three measures of meal and cook cakes for the strangers. Then he ran to the flocks and chose the finest caif and told a young man to dress it for the strangers.

The strangers asked: "Where is thy wife Sara?" And they said that the next time they passed that way Abraham should have a son. Sara was in her tent, and when she heard that she laughed. So when the son was born they called his name Isaac, for Isaac means "laughter."

Some use of arithmetic was involved in the measurement and weighing of the dye materials, and as the children lacked the necessary number knowledge, it was given in definite lessons before the dyeing was done. The problems which arose were:

1. Use of the metric scale and weights.

2. Changing of rules intended for use in dyeing 100 grams of wool to be used for 75-gram skeins. This involved recognition of 75 as ¾ of 100; also that three-fourths of each rule should be used; the finding ¾ of 4, ¾ of 12, ¾ of 2, ¾ of 8, ¾ of 16, ¾ of 40, ¾ of 80.

3. Drawing of a six-inch square in the center of a card.

4. Marking the edges of the square into quarter inches.

5. Estimating in yards, feet, and inches of the amount of yarn necessary for warp and filling of the six-inch holder, threads being one-fourth of an inch apart.

CLARA ISABEL MITCHELL.

THE UNIVERSITY OF CHICAGO
School of Education.

TEXTILE WORK CONNECTED WITH AMERICAN COLONIAL HISTORY.

THIS outline presupposes work as outlined in articles on "Primitive Textiles"[1] and "Basketry."[2] The social life of the period — the historical setting — is given in the history periods. The child's understanding of the daily life of a people is vivified by reproducing their typical occupations. This realization of their daily struggles is insured by his use of the actual material and the methods of their time.

One illustration of this is in the colonial cooking, where typical dishes were prepared and served. The contrast of service and customs thus brought out puts into relief present manners and customs. The character of the typical homes of the period was presented by means of descriptions and illustrations showing the development from the first rude shelter of the early colonist to that later style of architecture which was its legitimate outgrowth. Turning from food and shelter to the question of clothing, we find the colonists struggling in their dependence upon the mother-country for manufactured products and attempting to solve the problem of home production. Clothing is considered, not for the purpose of studying costume, but rather to give some idea of how it was obtained, to show the efforts of the leaders of the people to encourage the production of textile materials, the importation of implements and machines necessary to home production, and also the attention given to instruction in spinning and weaving among the younger people of the community. Such a study shows to the children in a forceful way the necessary share which industrial growth has in a life of political freedom. Industries other than textiles could illustrate these points, but the textile industry has the advantage of being associated in its beginnings with the intimate home life which developes gradually, in a way to be easily grasped by the child, to the more complex and larger industrial facts. The gradual organization at this time of itinerant workmen into small groups, and also the beginnings of factory organization brought about by the inventions then being made in textile machinery, and the application of water- and steam-power, are used to show the rapid breaking up of village industries into town factory life, and the advance made in social and industrial organization.

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[1] ELEMENTARY SCHOOL TEACHER, June, 1903.

[2] *Ibid.*, October, 1903.

The textile industry is a valuable occupation in educational work, because the processes can be duplicated in the schoolroom and planned from the materials through the child's own initiative. This makes it possible for him through his own experience to work out the evolution which actually has taken place historically.

On the theoretical side, the conditions of soil and climate were considered in connection with the physiography of the area. Maps were made showing the areas naturally favorable to the successful cultivation of fibers. Diagrams were made giving the extent of the cultivation of wool, flax, and cotton in the early colonial period in comparison with that of the present time. The tremendous increase in cotton cultivation was illustrated in previous work, when cotton was ginned for quilting and only eight ounces obtained by ten children in twenty minutes. They easily understood that one person could probably gin but one pound a day by hand, and unless some way were found to separate the seeds rapidly and without injury to the fiber, wool and flax would be used in place of cotton.

The length and structure of fibers were compared with reference to their spinning qualities and adaptability to cloth-making, and this comparison brought out the advantage of flax and wool in spinning and weaving with hand implements.

This interest in fibers was carried on to an examination of the fibers used extensively in yarn and cloth. A collection was made of the typical kinds of cloth, the analysis showing how the character of the cloth depends on the nature of the thread, and how the nature of the thread is further affected by the structure of the fiber. Upon these same conditions depends the relation of different textures to acids, alkalis, warmth, moisture, and inflammability — all of which conditions must be taken into account in an intelligent selection of cloth for personal or for household use.

In the preparation for cloth and pattern-weaving, flax and wool were the two fibers selected to work with, as a result of the previous experiments. A fleece was sorted for fine and coarse yarn; the children organizing themselves, for the sake of economy, into sorters, teasers, carders, and spinners. Flax was cultivated in the garden and also made into thread, using the simplest method of retting, heckling, and scutching. A mallet was used for breaking the flax, and a heckle was made by driving nails through a half-inch board. Wild hemp gathered from open lots near the schoolhouse was treated in the same manner. The interest in the work lay in the process, the resulting fiber being of little use.

The fact that nothing is produced either sufficient in amount or good enough in quality for use is of no importance in such experiments as the one just mentioned. Its value is rather that it explains and illustrates certain conditions of production and manufacture. No mere observation of the finished product could give the child such an understanding of the structure and properties of these materials as he gets from these apparently fruitless attempts of his own.

In order to explain the nature of the more complex textile machines of the period, the children used their knowledge of the primitive forms of carding, spinning, and weaving in formulating the development to the colonial period. From a discussion of what they had actually done in the primitive work, a definite notion of the general principle of the machine was discovered.

In order to make the class conscious of the problem — which was, in this particular case, the necessary work to be done by the carding-machine — each child, before considering the actual machine, made an original diagram of a carding-machine which could be run by power, from his knowledge based on the principle involved in the hand implements.

Several of the children worked out the device of a cylinder turning over a flat surface, getting without suggestion the notion that rollers are a necessity for machine work.

A study of spindle-sticks, whorls, and wheels dating from different historic periods makes it possible to form a theory of the invention of the spindle and its complete development through the spinning-wheel to the machine. How it grew out of the hand-work, and how improvements and changes were made to facilitate the work, was demonstrated by the children as they carried on the various forms of spinning. From the two forms of spinning known as "intermittent" (the New England wheel) and "continuous" (the German flax wheel) were demonstrated the two forms of spinning-yarns in the factory; the flexible woof-thread made on the "mule" showing the intermittent method and its close relation to the wheel, its progenitor, and the hard twisted warp made on the ring frame illustrating the "continuous" method of machine-spinning.

On the technical side, several points made clear to the children in their previous work were summed up in this year: (1) that the rotating spindle is the essential implement; (2) that improvements were possible in the mechanical means of rotating the spindle, (3) in the automatic method of attenuating the thread, and (4) in devices for working large groups of spindles. They were asked to invent a machine on which three or more spindles could be rotated automatically. This necessitated, of course, the automatic drawing and winding of the thread. Several of their original diagrams are shown in illustration.

Through the weaving done on various forms of hand-looms, which they partly invented and partly copied from looms of typical primitive peoples, they were led to understand the mechanism of the Colonial and Kentucky looms, and to appreciate the value of the attachments used to make the work automatic. Several successful inventions were actually made by the children.[3]

In the shop they made a model of a Colonial loom, and worked out a process of warping which included the construction of a warping-frame, as shown in illustration. For individual weaving a roller-beam loom was used which involved a process of warping intermediate between the Navajo warping and that used in the Colonial loom. By such methods they traced the

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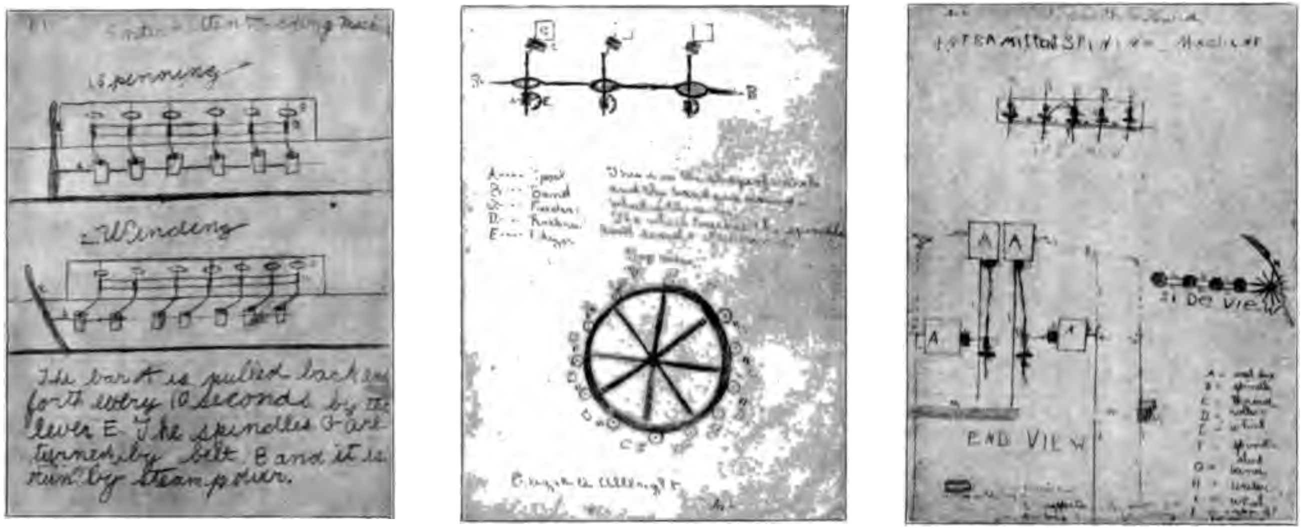
[3] See article on "Primitive Textiles."



The bar A is pulled back and forth every 10 seconds by the lever E The spindles G are turned by belt B and it is run by steam power.

ILLUSTRATING SPINNING MACHINE.

development of warping processes as definitely as t
those of carding, spinning, and weaving.

These problems connected with the inventi
machines were given, not alone for the purpose
their inventive power, but also for the purpose of i
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factory, it became clear that in the factory machine
is similar to that of the hand implements, and that
of the mechanical devices lies chiefly in certain atta
increases the speed and enables inferior fibers to

VIEW OF ROOM.

A child is constantly seeking to improve his
keenly delighted to observe the changes which his
goes. Advantage can be taken of this educational
such material as will be suggestive, and will als
definite approach to that phase of the work which
ally in the development of the subject and at the sa
it in line with the phase of social development unde
in the work in history.

In the solution of these problems the child
training that is given by abstract subjects, such as
example, with this difference, that the problems
are concrete, in touch with practical life, and ha
and social background which gives them a living

With the little child, the history must grow out pursuits. Only through his own actions and experiences can the child realize conditions other than his own; he is not capable of abstraction and theorizing. Names and dates mean nothing unless he can make them center about the activities concerned in history, and through them understand the vital forces which have resulted in social organization. The textile industry has always had such an intimate place in the organization of society that through its dramatic history we can follow the general social progress.

In connection with the children's inventive work industrial history is closely followed. In tracing the development of the loom we read of the invention of John Kay's fly shuttle, which enabled weavers to double the work accomplished in a given time. As the spinners could not keep up with them, the result was a scarcity of yarn. This made spinning a more lucrative occupation than weaving, whereas formerly spinners had held a subordinate position; and a great impetus was given to the invention of spinning-machines.

Many of the conditions in this transition period were read and discussed: such as the position of the spinner and weaver; the beginnings of the organization of the several branches of the industry; the misunderstanding of the value of machine work, and the benefit of machine work to the community; the unfortunate position of the inventor, and the riots which followed any inventions to relieve hand-work. The children took up the problems with which men struggled when the supply and demand of yarn were so unequal as to cause weavers to travel the country for yarn, and when the equilibrium of the several branches of the industry was being adjusted in the inventions then being made. Here again maps were made showing how spinning is done at the present time in different parts of the world, whether by distaff, wheel, or machine, each child being given one country to investigate. This map gives some idea of the different periods of civilization. It also shows how in a central city, like Chicago, for example, all the forms of these survivals can be found as a result of a mingling through immigration of people in very different stages of development.

Some children have traveled considerably and experience can describe primitive forms of spinnin in Italy, France, Germany, Russia, etc., and a advanced forms in the factory centers of New E foreign domestics employed in the homes have be information; while other chil these resources, make use of bo

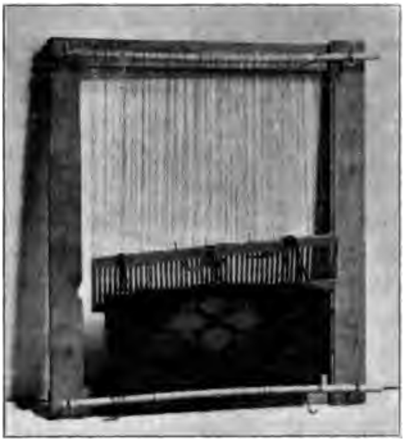
BAG.

In any work which is not mental the child first plans what With a child this always has use, such as clothing for a doll, a dollhouse, table-mat, belts, ba size of the article is limited b loom he can handle comfortably room. The proportions are pl drawing is made either full size as required by the size of the ob coal sketch is made of the ar decorations, the two being con same time, and not separately often the case with grown peopl usually has to be simplified w begins to consider his mater adaptation of his design to weaving. The techn made on cross-section paper, and the first consider ning the relation between the cross-section squares threads. As their proportion varies with the size a the warp threads, it becomes in each case a matter of tion when new material is used. A cross-sectio represent one or more warp-threads, and the relat the other is a matter of calculation with each child.

It takes careful work to make the weaving e proportions planned in the drawing. A charcoal filled into the cross-section drawing in such a wa as nearly as possible the character and proportion o sketch. This paper has wonderful and delightful the child, as a commonplace design often assumes interesting forms when transferred.

It is a matter of further calculation, when the weaving is going on, to repeat the woof-threads until they are in exact proportion to the squares. This is also an individual matter, as the materials, method of warping, and character of the weaving influence the texture.

In choosing the unit of design the children often conventionalize flower forms; others use geometric forms. In each case the effort of the teacher is to have the child appreciate the beauty of the unit and of good spacing. In color the children have previously used one color with the natural color of the yarn, and two or three values of one color with the natural yarn. In this year, when it is assumed that the children have handled simple color schemes, the dark-and-light scheme which is made in charcoal is planned in not more than three colors. The color schemes of the whole class are compared, and a list is made of the colors called for by the color design. The dyeing of the yarn is group work, each individual being responsible for the general principle involved in producing any color, and also for the directions for each particular color. In the dye-shop sufficient yarn of each color is dyed for the class. In the experiment with vegetable dyes the direct method of dyeing is first used — in the ordinary colors, red, blue, yellow, brown — together with the use of mordants with these same colors for indirect dyes, and also in the production of various colors and shades of color on polygenetic dyes. The effect of different fibers on the dye-stuff is one of the first observations made. After the experimentation with fibers and mordants with the pure dye-stuffs, other colors



WARPING FRAME.

are produced by mixing the dyes, using the sam
mixing which the child has used in handling a w
Yellow and blue is one of the first combinations m
ing a green. When any of the direct dyes are cr
tone in with a planned color scheme, it is mixed wi
lacks until it harmonizes with the other colors.

The question is frequently asked why we have t
to outgrown methods of work. In introducing hi
conditions, we do not mean that we desire to have
progress of the race, but rather to introduce him
activities and social conditions which are simpl
him to comprehend and in a measure control.
attitude toward the work does not mean any withd
est from immediate home activities. It rather s
connection of home and school life, in that the
through partaking in these simpler occupations,
many of the secrets and mysteries of modern man
is not separated from home conditions, but repeat
fashion the work of today. As his horizon widen
self sees larger opportunities, he is able to constr
with richer content a larger whole. The method
rather than analytic. In giving emphasis to this
history, we bring the child into closer touch with t
the people with whom he is concerned in history
industries were fireside occupations, and include
of the family in helpful co-operation. In the p
the household and domestic industries, where par
was done by a group of workers in a central
example, carding and fulling — the child gets id
social organization, the relation of home and comm
the responsibility of the individual to this larger li
the development through the transition period, he
comprehend the purpose of factory organization.
prehending the growth of one social occupation,
upon social life and history, he is better able to tak
intellectual problems connected with a further stud
in secondary and college work.

It is a noticeable fact that the children who take up this later work without the primitive experience in textiles depend upon given information. They follow the lead of children whose attitude is one of inquiry and investigation, and whose creative impulse shows, not only in the discovery of processes and methods of work, but also in their artistic impulses and power in creative work. Pedagogically considered, this is the most important result of the work — this making the children scientific and self-reliant in their attitude of mind.

One important fact, not to be overlooked, is that the work is continuous throughout the child's school experience — not a piece of work of a week or a year, but an industry in which the different periods of advancement can be presented continuously, while the student is perceiving a larger social horizon and assuming larger social responsibilities.

There are two currents of experience which run into the child's work — that which he gets from his own environment, and that which he gets from a study of the past. This past which he is studying contains also these two forms of experience — the tradition and technique of each period, and the revolution which takes place through the changes and advance made in each succeeding period. At each period the question unconsciously arises: What did these people inherit, and what additions did they make to their inheritance?

This work also serves a utilitarian purpose, and leads finally to a practical end of the highest order. In opening these fields of work to the child by means of expression through materials, opportunity arises for the awakening of latent powers. His tendencies are utilized before the individual loses plasticity, and before he is hedged in by the limitations of interest and stress of everyday opinion through contact with occupations and business.

In the production of articles for actual use the joy of the child lies in the mere doing and making. His impulses, constructive and artistic, are realized in actual, concrete form. The result of his work shows any laxness or carelessness in its planning or construction. He is face to face with himself, criticism from another being superfluous. He is not only adjusting

himself to the social environment, where he is co
test in the organized group work, but he is also
the physical environment, from which there is
the judgment passed, and where excuse is futile
The moral effect of this is inevitable. Here, als
opportunity for children limited in other forms
who often gain a position among their associate

The scientific method is followed throughout
made conscious of the problem and seeks his own
material he uses. Aside from broadening the his
the child gains experience with the forces an
nature — physical facts and forces involved in the
machines used in balancing, weighting, and rotat
He learns the advantage of friction that makes po
mission of power through a belt from the larg
spindle, the advantage of simultaneous windin
obtained by a difference in size of the diameter
and spindle-wheel, and of the system of draw ro
ating the threads. The foundation for a bette
of chemistry is laid in the preparation, mordantin
fibers, yarn, cloth, etc. The study of the sou
material gives him geographical conditions of c
And, finally, the consummation of all of these is
The result is that the child in each period of t
experience along several distinct lines of work:
which is the basis of the whole; (2) the invent
mental work, including science, physiography,
physics; (3) simple problems in mathematics,
implements, and in the technical construction
æsthetic expression in color and design; (5) hand
work and textile materials.

ALTE

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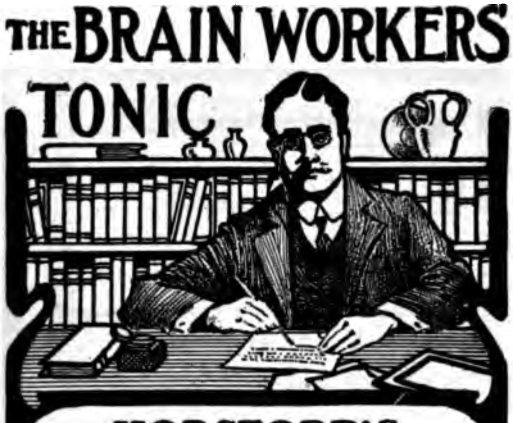

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CONTENTS FOR JUNE, 1904

TRUE NATURE-STUDY - - - - - - - - - - - -
FIELD WORK—THE CHICAGO AREA - - - - - - -
PHYSICS IN THE ELEMENTARY SCHOOL - - - - - -
SOME USES OF CHEMISTRY IN THE COOKING WORK - -
WHAT ATE THE MULLEIN? - - - - - - - - -
DRAWING AND PAINTING IN CONNECTION WITH NATURE-ST
A
RELATION OF NATURE-STUDY TO CLAY-MODELING - Antoin
NATURE-STUDY AND MANUAL TRAINING - - - - - -
THE USE OF TRAVELING MUSEUMS IN THE PUBLIC SCHOOLS
R
THE HOUSEHOLD ARTS IN THE ELEMENTARY SCHOOL Alice
SOME PROBLEMS IN SCHOOL HYGIENE - - - - - E
THE VALUE OF HOUSE WORK IN TEACHING RESPONSIBILITY
M
THE OPPORTUNITY OF THE TEACHER - - - - - - -
THE RELATION OF LANGUAGE TO THE MOTOR PROCESSES J
NEURO—MUSCULAR EDUCATION OR DEVELOPMENT - -
BOOK REVIEW:
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THE ELEMENTARY SCHOOL TEACHER

JUNE, 1904

TRUE NATURE STUDY.

WE have at last reached a stage of advancement when nature-study bids fair to become a subject possessing live and genuine interest. It has taken fifteen years to make even an impression upon two great ideas that have stood like a granite wall between the student and nature. One of these ideas must be charged up to the theologians, and the other to the scientists. Under the first, it was taught that living things are to be estimated in terms of their direct usefulness to the selfish interests of man. It was flattering to human vanity thus to view creation, but it was not always easy to make the facts square with the theory, and the great classification of the useful and the useless gradually grew up. Everything included in the former was studied with a patronizing air that sometimes developed a maudlin sentimentality; the latter class were studied only to be destroyed. As a result of this supposed preordained slavelike relationship to man, it was natural for the student to get the idea that all the so-called lower animals, as to intelligence, were to be regarded as more or less idiotic human beings; whereas the fact is that the members of the animal world, each in his own sphere, are supremely wise.

The obstacle set up by the scientist is found in the idea of types. With the scientist, the individual has counted for little except as it contributed to the creation of a figment of the imagination known as a *type*. There has been produced only occasionally a text-book in science that is not given over body and soul to the worship of types. One of the chief differences between such science work and the better forms of nature-study is found in this: science has been chiefly concerned in discovering points of similarity for the sake of huddling together as many individuals as possible into a group, class, or genus; whereas nature-study of the best kind is just as much, or more, concerned about individual differences as it is about likenesses. As applied to living things, whether animals or plants, it is becoming more and more a study of personal characteristics. There is no doubt that science is trending in the same direction; this is shown by the tendency to split up once well-defined species into an indefinite number of varieties, which is the result of a closer study of individuals. Observers are learning that, for example, when they have found out the correspondence that exists among the bones of all the birds—or all the vertebrates, for that matter—they have not yet begun to observe the most interesting part about the animal, namely, how the *individual* solves the *personal problems* that must come up in his life. It is clear that the *personal* characteristics must be more important and more interesting than those of a general nature which may be termed racial. They are more important, because it cannot be supposed that the inherited traits which were acquired in past ages, when conditions were different, will embody enough wisdom to enable the being, either brute or human, to solve successfully the particular problems which meet him today. Living things vary because conditions change; the variation is, therefore, individual, not racial. The most unfortunate thing that could happen to the individuals of a group, plant or animal, brute or human, would be to be created exactly alike and all having precisely the same ways of doing things. The members of such a group of any size could not survive more than a generation or two. Conversely, the most fortunate thing in life is to be born just different enough from everything else to have an individual and a unique point of view; to have novel ways of getting results; to have the power to see the "other side" of matters which engage general attention; to be able to utilize what other things waste; to save easily where another is compelled by nature to spend. These are personal attributes which make for robustness and virility in the individual, and it is through such that the race survives. Every individidual born into the world therefore may be regarded as the orginal progenitor of a new line of individuals which are remarkable, not for their many points of similarity, but for the power that each possesses to vary from all the others. It is by reason of these fortunate unlikenesses that have constantly occurred that the earth is filled today with living forms, the infinite diversity of which strongly attests the importance of being unlike.

About a year ago, Mr. Caspar Whitney, in *Outing*, commenting upon the recent controversy between Mr. Burroughs and Mr. Long, states the case so fairly and well that the liberty is taken to quote at length from his editorial. He says:

> If nature-study teaches anything, it teaches the mistake of counting on what one animal will or will not do, from what you have seen others of the same species do. No one knows all there is to know about animal life. Cuvier, Darwin, Wallace, Audubon, were mere beginners, and we are all babes in the world of nature. The average man does not see what is going on all about him; the scientist, lacking imagination, and following in more illustrious footsteps, sees only that which is tangible.
>
> Nature-study, as we understand it today, has passed beyond the ken of the scientist who deals only in plain facts; nature-study is not an exact science, and has been handicapped by those who seek to pretend that it is. Let the scientist keep to the plain facts; that is all we want from him. But to the sympathetic nature student we look for separation of the classes into individuals and interpretation of their hundreds of little life-acts, which are quite beyond the understanding of the right-angled-triangled scientific man.
>
> The old-school scientist assumes that all animals of the same class are alike, but the intelligent and experienced nature student knows that they vary in temper, in strength, even in habit; not, of course, sufficiently to disrupt class distinction, but to give them decided individuality.
>
> The fact that the life of every animal is one of continuous alertness, and that nearly every one is closed in tragedy, gives wide and varied range for observation and abundant scope for the writer's imagination. We want the writer who appealingly interprets his observations, because he is a missionary doing invaluable service.
>
> " Every artist does something more than copy nature; more comes out in his account than goes into the original experience"—to quote the very words I find in one of Mr. Burroughs's delightful essays. Again quoting from Mr. Burroughs: " Man can have but one interest in nature, namely, to see himself reflected or interpreted there, and we quickly neglect both poet and philosopher who fail to satisfy, in some measure, this feeling."
>
> And yet it is true that if we are to accept his work as natural history, he

must not permit his fancy to carry him too far beyond the discovered facts. But facts are one thing, and conclusions drawn from observations are entirely personal and may be quite another thing. If an author makes a misstatement of fact, I note it against him as carelessness or ignorance; I may not agree with the conclusions he draws from an observation I have shared with him; I may not, in a rather wide observation afield, have seen what he has in a more limited experience — but I should beware of setting myself up as his judge and jury and publicly excoriating him, lest perchance my own ignorance stand disclosed. Every observer has a new story and new light to shed on the cat or dog or squirrel. And consider the various and varied tales of guides and trappers and hunters.

Everyone who has had even ordinary opportunities for observing nature will be able to recall many things to substantiate what Mr. Whitney says as to the peculiar traits of individual creatures. A year or two ago I had the opportunity to watch a robin that had a nest full of hungry young ones in a maple tree in a neighbor's yard. Her favorite hunting ground for worms was in the sodded door-yard of the adjoining lot, upon which stood a small barn with a wooden bridge leading up to the door. This bird, instead of carrying the worms singly to the nest as she found them, carried them to the barn bridge where she laid them down to wait until she had caught several, and then she would gather them all up and fly to her nest. It is not down in the books that the *genus* robin does this, nor have I ever known such a fact to be recorded of a robin before; yet this individual bird did discover that she could save herself some extra trips by gathering up a number of worms before leaving the hunting ground. In the same door-yard there was an educated man removing the mown grass from the lawn. To do this he gathered together a number of small piles of grass into one large heap and then carried it all off at once. We usually satisfy ourselves by referring the actions of the robin to *instinct*, but those of the man we attribute to *reason!*

I once was on more or less intimate terms with an old fox that had a large family of young housed in a deserted coal mine that entered the side of the hill about half a mile away. Naturally enough, Mrs. Reynard depended largely upon the farm-yard products for the maintenance of her family, and one time I had a chance to study her methods. She was observed, some distance away from the barn, stalking a flock of chickens. She simply *walked* after them, apparently knowing that if she became too enthusiastic in the pursuit, they might, and probably would, take wing. Finding that she was being watched, she bounded away to the den. Noticing a bunch of feathers lying in the course over which she had stalked the chickens, I proceeded to investigate, not doubting that I should find the mangled remains of a fowl. To my astonishment, instead I found a rooster, with his heels in the air, lying on his back in a shallow hole, left by a horse's foot in the soft turf, and entirely unhurt. When I set him upon his feet, he ran away, no doubt much surprised to find himself alive. The fox evidently had put the chicken on his back into this hole, at the same time hypnotizing him into the belief that he could not extricate himself. Presumably he, by following this plan up, would have secured a full load of poultry before returning to the den to face the clamoring youngsters. I subsequently tried the same experiment upon a rooster, and found that by placing him on his back, as the fox had done, I, too, could make him lie still—but I learned the trick from the fox. I have never heard of a similar observation, and cannot say whether it was a habit peculiar to this particular fox or not.

One time, in a large city, I kept an opossum as a pet for nearly a year. It is a misnomer to speak of him as such, for he never seemed to appreciate in any way the attentions he received. One day in the summer he escaped, and for a time all trace of him was lost. The following spring, hearing that a man several blocks away had killed an opossum which he had caught in his chicken-house, I visited the place and found that it was my unfortunate pet. The man said that he had been missing chickens all winter, but had been unable to find the marauder until he had actually lain in wait for him. The interesting point was to know where the creature had lived all these months following his escape. About half a mile away, but in a thickly settled district, was a shelving rocky cliff formed by the construction of a railway tunnel through a hill. It seemed most plausible that he had sought shelter and refuge in this place, but one could not be sure. The important fact was that this stupid (?) little beastie, reared in the wilds of the Blue Ridge Mountains, with certainly no opportunities of knowing city ways, had managed to support himself and remain undiscovered for nearly a year, in the midst of thousands of his most deadly enemies. Could a human being under corresponding circumstances have done any better? Would a Japanese spy get along so well if he tried to live in Russia? Yet the opossum took just such chances in staying in the city, and he must have found it necessary to invent some ways of doing things that were new and strange to the "typical possum."

Herein lies one great value in pets that can be kept under normal conditions. The child is brought face to face with the peculiar ways that a particular individual has of doing things. The knowledge thus acquired is infinitely more interesting and stimulating in the direction of further study than anything that can be gotten from books or from a more general study of types. The same principle must be applied to the study of nature that we observe in the study of human beings. No one is interested, except in a general way, for example, in the study of tailors as a class. But the study of how the individual tailor makes his way, by contriving special forms of advertising, by changing the cut of his clothes, and by other devices that are peculiar to himself, and which tend to distinguish him — all these are full of interest. The same applies to all living things. The fact that they are on the earth today shows how skilful they have been in devising ways and means of self-support. All those less skilful are embalmed in the rocks as fossils or have utterly disappeared. The survivors, therefore, should be objects of the greatest individual interest. In their own field their skill outwits our own. Were we to attempt to live by the chances taken by a kingfisher, we should have to go to school to the kingfishers for a million years. It is only through the study of the personal life of the individuals that we can have that true nature-study upon which we must depend to broaden the sympathies of the children for the world of nature at large.

WILBUR S. JACKMAN.

THE UNIVERSITY OF CHICAGO
School of Education.

FIELD WORK—THE CHICAGO AREA.

FIELD work is a study of the surface of the earth and the life that inhabits it. Its purpose is to enlarge and intensify the sense-experience, alertness, and intelligence of students by direct contact with their nature environment. Its position in school work should be determined by our estimate of the value of individual contact, observation, sense-experience, and judgment on intelligence and development. Its keynote is individual interest; the crucial point, pedagogically, is that the mental movement aroused by direct observation and experiment shall not be obstructed or dissipated by reading and teaching explanations. Reading, pictures, recitations as aids should intensify, enlarge, and continue mental concepts, but never, as they all too frequently do, convert the mental movement, induced by experience, into acts of formal memorizing.

Every environment offers a greater or less range of opportunities for original experience and inference. It is essential in our school work that we see to it, especially in cities, that indoor equipment is not looked upon as a substitute for outdoor experience. Each has its proportioned place, the balance of which should be maintained by the school curriculum. The possible detail and range of field work is, to a degree, limited by heterogeneity of environment; a region of considerable variety of contour will offer more than an unbroken plain.

Earth contour.— In the evolution of the earth, its surface has been molded by the forces of diastrophism, vulcanism, and gradation, into mass features (topographic forms) known as mountains, plateaus, and plains. These mass forms are marked by a greater or less number of minor rugosities, known, according to their genesis, form, and content, as—

1. Shores and beaches, with their associations.
2. Lakelets, lagoons, swamps, with their associations.
3. Gullies, ravines, valleys, with their associations.
4. Hummocks, hills, ridges, with their associations.
5. Levels, flats, plains, with their associations.

As to vegetation, these areas may grade from barren to dense forest. As to moisture, they may grade from almost complete aridity to saturated humidity.

Local field work has to do with an acquaintance and investigation of these type areas, and their gradations as to their physiognomy, contour, genesis, mineral content, and the occurrence, distribution, habits, adaptations, and controls of their plant and animal life.

These areas may be considered unit environments. The mental content resulting from a general and detailed study of each type should, to a degree, correspond to the true interrelations of the area; *i. e.*, if the action of certain forces gives rise to contour, and contour modifies the physical conditions of moisture, temperature, light, air (winds), and these in turn exert an influence on plant and animals, etc., then the mental content of study should lead to an intelligent appreciation of these interrelations. The breaking of this unity, in the earlier stages of school work, by isolating studies of physiography, botany, zoölogy, etc., instead of building up unity through their interrelations, reduces greatly the effectiveness of our teaching and student effort. The key to this unity is in (1) the character of the class work, and (2) some organized system or method of preserving, for future reference, the essential results of student observations and experiences.

Educating is an accumulative process. In all accumulative processes we need to eliminate the possibilities of leakage and waste. This waste has always been a most prominent factor in the educating process. The key in eliminating waste is in progressive unity. This principle has long been recognized. Text-books have always aimed at progression, but in our use of them we have largely eliminated individual initiative, sense-experience, and judgment of pupils, and reduced them to memorizing automatons. In our return to a type of work of rich subject content, and which at the same time admits of a wide range in cultivating individual initiative and sense-experience, we are losing much, by general leakage and disintegration, from lack of organized direction. This lack of unity or continuity is especially prominent in the passage from one grade or year to another. We need some unifying centers or principles which will aid us in selecting and accumulating the, year to year, essential educational experiences of students. We have failed in our efforts to have students conform to a system. I take it that our next move is in organizing and developing a system which will conform to the normal, natural work of students. This system must find its basis in the broader generalizations of modern science and sociology, the keynote of which is unity.

The details and stages of progress in field work need more consideration than has yet been given them. They must yield largely to the nature of the environment and the individuality of teacher and students. The stages may be enumerated as —

1. The primary, when pupils visit various areas and become acquainted with their content of minerals, plants, animals, satisfying their instinct of curiosity, developing sense alertness and acuteness, accumulating an acquaintance, and love for outdoors and what it offers, and receiving the mental and physical benefits insured by these experiences. They return to the school accompanied by materials to be used in the schoolroom for furthering their observations and experiences, and to aid in the development of adequate skill and efficiency in various forms of expression.

2. This work grading to more specialized work in observation, experiment, and investigation as to the nature of forces, conditions of control, properties of various materials, animal and plant habits, morphology and

physiology, change of environment and adaptation, culminating in an intelligent appreciation of the fundamental principles of progressive change and readjustment in environment.

3. Period of specialized investigation or research. The results, in terms of human knowledge and skill, should be the ability to approach intelligently the problems, pure science and economic, relating to any environment, and the skill to command and use such facilities, as the times offer, to aid in their true solution. It is constant return to old materials with new problems and interests requiring more extended and minute investigation — the work always continuous.

THE CHICAGO AREA.

The five type-regions enumerated and evidence, past or present, of the surface-molding forces — wave action, running water, wind, glaciation, diastrophism (all except vulcanism) — are easily accessible in the Chicago area. The opportunities offered by this region for wide range in field work are exceptional.

GENERAL OUTLINE FOR A STUDY OF SOME OF THE TYPES OF THIS AREA.

SHORE TOPOGRAPHY — EROSION TYPE.

(Glencoe-Lakeside region — Highwood Quadrangle.)

This region affords excellent opportunities for the study of a shore bluff:

1. Distinguishing features indicating the genesis of the bluff. Face of bluff recently exposed or old.
2. Conditions determining the influence of waves as an erosion force.
3. Details of the method by which waves develop a bluff. Limit of height. Conditions determining slope, rate of erosion.
4. What disposal is made of the products of bluff erosion? Trace, through successive stages, coarse materials, fine materials.
5. Compare the mineral contents of the bluff with the mineral content of the strand.
6. Account for the presence of the bluff materials in the area.
7. How does erosion influence vegetation? How does vegetation influence erosion?
8. List the plant life occupying (*a*) the strand, (*b*) the bluff face, (*c*) the top.
9. Enumerate the conditions of each region favorable to plant life; unfavorable.
    - *a*) What societies predominate?
    - *b*) Examine the physical conditions of the soil.
    - *c*) Do the physical conditions of the soil of the strand or bluff influence plant rooting?

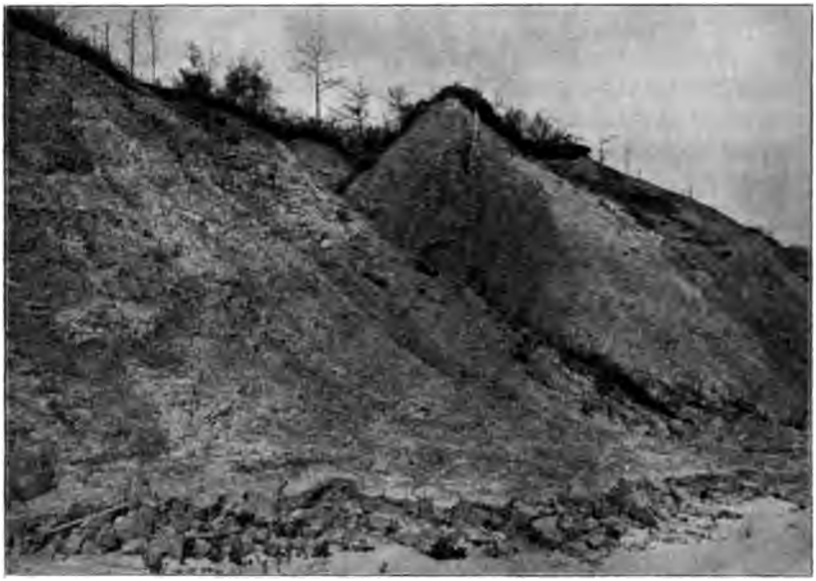
d) Enumerate plant habits and structures which may be considered adaptations to environment.[1]

10. Enumerate animal life common to the strand and bluff. What type of animals are attracted to a bluff region?
11. Along an erosion coast, what region is destructive to life; what region favorable to the expansion of life?

SHORE TOPOGRAPHY — BUILDING TYPE.

(Seventy-ninth Street, Edgemoor and east — Toleston Quadrangle.)

1. Evidence that this is a building coast.



a) Are there any evidences of shore erosion? In a region where there is evidence of erosion and deposition, how is the type of coast to be determined?

2. Conditions determining the deposition of wave materials.
   - *a*) Mineral content of this strand material.
   - *b*) Possible source of this material; evidence.
   - *c*) Detail study of waves and deposition.

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[1] The plants of this region may be grouped into the three societies: Hydrophytes, Mesophytes, Xerophytes (see COULTER, *Plant Relations*, p. 170).

REFERENCES: Gilbert, *Fifth Annual Report*, U. S. Geological Survey; Davis, *Physical Geography;* Chamberlin and Salisbury, *Geology*, Vol I, pp. 323-61.

3. Transportation of strand materials, direction of movement, effect of transportation on materials.
4. Land forms resulting from wave deposition.
5. First plants to occupy this newly formed land.
   a) Conditions favorable to plant life.
   b) Conditions unfavorable to plant life.
   c) Succession of plants to complete covering of vegetation.
   d) Habits and structures that you consider adaptations favorable to environment. What plant societies predominate?
6. Animal life characteristic of the area.
   a) Conditions attracting animal life to the area.

   b) Habit and structural adaptations of animals to this type of environment.
7. Along a building coast, what section of the region is destructive to life, what section favorable to the expansion of life?

REFERENCES: See under erosion type.

WIND-MOLDED TOPOGRAPHY — SAND DUNES.

(Millers-Dune Park region — Toleston Quadrangle.)

1. Physiognomy of a dune topography.
   a) List the characteristics of a wind-molded topography: (1) which constructive; (2) which destructive?
2. Relation of wind direction and force to dune movement, contour, elevations, and depressions.

  - *a*) How does the sand move?
  - *b*) Angles of slopes and their significance.
3. Relation of present dunes to previous landscape and topography.
   - *a*) Mass movement of dunes, evidence of; how?
4. Plant life as related to dune area.
   - *a*) Variety of plants growing on the dunes.
   - *b*) First plants growing on the dunes. Ways in which plants gain possession of dunes. History of development of plants on a dune area.
   - *c*) Characteristics of these dune plants.
   - *d*) Plant forms — rooting, rate of growth, stem growths.
   - *e*) Dominant society of the area.
   - *f*) Plant habits and structures which may be considered adaptations to the area. Conditions favorable and unfavorable to plant life.
5. Animal life living within the area — list.
   - *a*) Conditions attracting it to the area.
   - *b*) How it maintains itself in the area.

REFERENCES: Cornish, "Formation of Sand Dunes," *Geological Journal*, March, 1897, p. 278; May and June, 1898, pp. 528 and 628; Chamberlin and Salisbury, *Geology*, Vol. I, pp. 23-35; Cowles, *Ecological Relations of the Vegetation on the Sand Dunes of Lake Michigan; Geological Survey of Indiana*, 1897, pp. 40-100.

RAVINE TOPOGRAPHY.

(North Chicago. For type of topography see Highwood Quadrangle.)

A detailed study beginning at the head of the ravine:

NOTE.— Consider the genesis of this topography; evidence that it is the result of stream erosion; how a ravine grows in length, depth, and width; conditions for the starting of a ravine; stream permanent or intermittent, conditions controlling; disposition of eroded materials.

I. *Head of Pettibone Creek.*— (This area is chosen on account of a few special features. The ravines of Lakeside, Glencoe, and Ravinia are equally instructive.)
   1. Detailed topography of the area above the head of the ravine.
      - *a*) The dominant plants of this border area; their soil and moisture condition — at time of observation, at beginning of growing season. What visible influence has variation in moisture conditions upon the plants of this area?
   2. Forms of animal life common to this border area; those actually seen; those not seen, but their presence indicated by tracks, burrows, or nests. The special features — food, water, homes, hiding places — attracting the various animals to the area. Do these animals spend the entire year in this area? The food of these animals; their method of locating and prehending it. Is their food available during the entire year?

II. *Area between ravine head and intermittent spring area.*

1. Observe the exact changes that occur in the back area as the head of the ravine advances inland; in topography; in plant species; in luxuriance of plant growth; in evenness of distribution in the area. What factors, influencing plant growth, are modified by this change from a level to a ravine topography? Are the conditions more favorable to plants in one part of the ravine than in another? Consider direction of slope, steepness, base, and top.
2. Has the change to a ravine topography been favorable to any animals not found in the border area? Has it been unfavorable to any animals of the border area?

III. *Spring to permanent stream—Conditions for permanent stream.*

1. Most noticeable influence of springs on topography, plant life, animal life. Plants found in this area and not common to any of the previous areas. Plants of this area common to former areas. What change in conditions has favored new plants? Do the conditions in any part of this area exclude plants found in the areas above this point? What influence has alternate flooding and drying upon the plant and animal life? Are any of the plants confined to a particular aspect of the area; around head of spring, in marsh below the spring, base of slope, top of slope?
2. Animal life found in the spring; forms living on the water surface or swimming through the water; those living on the bottom. Animals living in the marsh below the spring; those confined to the water; those alternating in and out of water; those reaching water by burrowing. The method of locomotion of these various animals; their probable way of entrance to the area; the nature of their food. (Secure living specimens for aquaria and cage study.)

IV. *Permanent stream area.*

1. Consider the various ways in which the stream has developed its topography; the plant life associated with each topographic feature at different stages of development.
   - *a*) Bare bluffs, caused by land slides on account of basal erosion; plants first gaining foothold on this bared area; plants that succeed each other until the area reaches its highest stage of plant development. What changes in growth conditions occur at each progressive stage? Observe the use made of these bluffs by animal life.
   - *b*) Deposition of sediment forming a mixed clay, sand, and gravel flood plain; plants gaining a foothold on this area; succeeding plants, until the area reaches its highest stage of plant development. Compare with plant development of bluff. What factors of growth most influence the plants of the flood-plain area? Are these allu-

vial deposits used as feeding grounds, nesting
places by animals?

c) Lagoon from a deserted stream bed or cut-off:
this area; compare with plants along the flowi
sion of plants in the dying out of the lagoon
which these new plants find their way into the
common to the lagoons; compare with permane
the spring life. In what respects do condition
Do the animals show any corresponding variatic
ture? Consider influence of current; gravell
stagnant water; enemies.

V. *Stream mouth and lower flood plain area.*—(Stream b
current stagnant one-fourth mile inland; wide floo

Plants in the stream not found in the upper areas;
on the stream bottom. Compare the plants found on t
with the plants of the level area at the ravine head.
growth conditions differ? Be on the alert for indi
look for tracks in the soft banks along the stream;
for birds. Are the conditions more favorable to anim
upper valley?

REFERENCES: Salisbury and Alden, *Geography of Chi*
Cowels, *The Plant Societies of Chicago and Vicinity;* Jordan
neaux, *Life in Ponds and Streams;* Gaye, *The Great Worl*
and Salisbury, *Geology,* Vol. I, pp. 53-200.

LAGOON-MARSH TOPOGRAPHY.

(Sixty-Seventh Street and Jackson Park; various regions in
area — Chicago and Calumet Quadrangles.

1. Various names by which this type of physiography is
2. Conditions essential to its existence.
   a) Topographic conditions.
   b) Moisture conditions.
3. Ways in which the essential topographic conditions m
4. Probable genesis of the particular swamp visited.
   since its origin? Evidence.
5. Mineral and soil content. (Examine soil by driving g
   to various depths and withdrawing the soil.)
6. Plant life of the swamp and its zonal distribution.
   a) Zone of plants nearest the water center.
   b) Zone of plants rooted within the permanent-water
   c) Zone of plants along the fluctuating water margin
   d) Plants beyond the water margin.
7. Plant habits and structures which may be considered
   conditions of each zone — aquatic, amphibian, terrestri

8. Relic vegetation.
9. Animal life common to the area.
    a) Its zonal distribution — aquatic, amphibians, terrestrial.
    b) Habits and structures as adaptations to this type of area.
10. Topographic life-history of this type area.
    a) Original appearance of the area at its genesis.
    b) First changes to occur.

    c) Possible first plants to appear in the water area, the margin area, the terrestrial border. Continued succession of plants and their influence on the swamp.
    d) Possible first life to appear in the area, its adaptation and succession, and its influence on the area.
11. Economic aspect of swamps.

REFERENCES: Furneaux, *Life in Ponds and Streams;* Needham, *Aquatic Insects of the Adirondacks;* Baker, *The Mollusca of the Chicago Area;* Needham and Hart, *The Dragonflies of Illinois;* Cowles, *Plant Societies of Chicago;* Coulter, *Plant Relations;* Elliott, *North American Shore Birds;* *Geological Survey of the State of Indiana*, 1899.

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PHYSICS IN THE ELEMENTARY SCHOOL.

Experimentation in physics in the elementary school has a different meaning from experimentation in physics in the high school. This is especially true where the experiments in the high-school course consist of following a series of minute directions and taking careful note of what happens, either to verify a previously stated law, or with the more vague purpose of being able to generalize the observations into a law. One may well wonder why some books are called "manuals of experimental physics," when not a single chance is given the student to experiment, but only carefully to follow directions and the chain of reasoning indicated by the author. Perhaps it is with this kind of physical experimentation in mind that some teachers of physics in the high school express doubt as to the value of physical experiments in the elementary school.

But the child will experiment. In his play the boy of six tries this and that, in imitation of what he has seen done by his elders. He does not distinguish means from end, or process from result. As he grows older, he is no longer satisfied with the crudity of his playthings, and begins to plan improvements. He notices the ways of doing things, judges their advantages and disadvantages. He notices more and more of process, and acquires the ability to use his past experience in working toward some end; he is able to solve his problem more directly.

In the younger grades, the physics work is a part of the cooking and the textile work, the shop-work, and even the history. The children do not generalize much. Their aims are immediate, and of a purely social nature. They may experiment to find the best way of sailing a toy boat, which they have made while studying the early explorers; or they may try to find a better way of cooking some vegetable, and may suggest a way which they have seen others use. Or, in the smelting of metals, the class may learn something of the temperatures at which the metals melt; but this is only incidental; the work in which they are engaged is the making of pewter dishes. This work has little of the purely intellectual; the interest is not in the process, but in the doing.

As the children get into the fifth and sixth grades, there is less of the social interest in the experimental work. They begin consciously to see what will happen, but not to see why it happens. Their problems are still concrete, and have to do with things, not ideas and laws. But this last stage is not fully reached before the child has entered the high school, or at least before he is in the eighth grade.

It may be well to suggest some ways in which the different school activities require the aid of physics. Many schools now have gardens, or encourage the children to have home gardens. Before any seeds are planted, the ground must be prepared. Seeds must not be planted before the frost has left the ground, or the seeds will themselves freeze, and the expanding water will rupture the tissues and the seeds be killed. The frozen earth softens slowly, because soil is a poor conductor of heat. The temperature of the soil at different depths, its constitution, its texture, and the amount of water in it, will help to determine the success or failure of the plant. Some plants must be started in a hotbed, where the temperature on a sunny day is higher than in the open air. The problem is raised: How does the water get from the ground-water level to the roots of the plants? And how does the water get from the roots to the leaves of a plant? How and when ought the garden to be watered? The reasons for stirring the soil or not stirring it under different conditions must be understood, and may be worked out experimentally.

The work in cooking requires the frequent help of physical laws, which in their immediate bearing may be worked out by experiment. The problem of how best to apply heat to the food suggests the ways in which heat is transmitted, and the effect of heat on different foods. The problem of solution is introduced in many ways. The expansion of the bubbles of gas in bread or cake when baking brings up problems requiring experiment. The making of ice cream requires some knowledge of freezing mixtures and of the latent heat of water. The use of physical facts in the garden and kitchen is not the result of an effort to correlate cooking and physics, or gardening and physics, l natural and free. Physical laws and principles a and simplify the other work; they are not dragg it is desirable to know them.

The geography classes are constantly exp problems of the constitution and the activities chiefly physical. The percolating waters dissolv precipitating them; the streams making their ch ing their loads to the sea; the atmospheric curre conditions and states of water in the atmosphere, volcanoes — all these require experimentation ciation by children. If there were space, it mig physics enters into the work of the "manual-t or of the clay-modeling and textiles classes. T danger in this kind of work that the problems enough organized, and that the interest which simple doing will lead the thought away from th is a further danger that the problems will not own, but the teachers'.

But physics deserves more of a place in the elementary school than to be the tool of the othe a legitimate place in the course of science in the in the older grades, along with botany or ph seventh and eighth grades the children *begin* to The interests begin to shift from things and immediate results to principles, laws, and gene child begins to think of the *meaning* of phenom of the phenomena themselves. Physics adapts i these conditions. Yet as the child is only *ent* lines of thought, a good deal of the constructi retained, in order that the thinking may be logical.

The teaching of a course of experimenta seventh or eighth grade offers also an opport together the physical facts which have been lea grades. They are brought together from a ne so that they are not thought repetitions by th example, two or three months may be spent on a study of the principles of elementary machines, starting with the simple lever, and working up to the more complex combinations. The principles of the lever, the wheel and axle, the pulley and the inclined plane, may all be familiar, but the child has never consciously formulated the laws or principles, and fresh experimentation is necessary. This reason for experimenting is a distinct gain on that of former years, when the process or the immediate end constituted the problem. An excellent way to apply the laws formulated is to construct a piece of apparatus which combines many of the principles of machines, such as a clock, or one of the numerous mechanical toys

It may be wise to take up a problem with many new factors, such as that of light. The fact that many of the children are interested in photography offers an introduction to the subject, and suggests a way of attack and a point of view. The knowledge gained of the nature of light, the laws of reflection and refraction, the uses of lenses of different kinds and of different focal distances for different purposes, may be summarized by the use of cameras by the class, or even by the construction of simple pinhole cameras.

Classes are always interested in the study of electricity. It is usually found that the children are familiar with the fundamental facts about electricity, and a review of these suggests problems to the class. The question of what is going on in the electric cell requires experimentation to answer, and experimentation consciously planned toward a rather remote end, where the conditions must be varied or simplified to bring out the answer. A search for a theory of electro-magnetization requires repeated trials or experiments before theories are found to match with facts. The problem of the chemical effects of the electric current requires experiments which bring out the principles of electroplating and the storage battery. Toward the end of the course, the class takes delight in constructing pieces of apparatus which apply the laws of electrical action already learned. It is entirely practicable for all the members of the class to construct, or at least put together, apparatus which has some real value. It is possible for classes to make storage batteries, stoves, electro-magnets, induction coils, to ass motors, and the parts of electric bells, beside carbon-zinc batteries. The value of this con in the spirit of investigation which the child ac his *own* problems, rather than in the manual s

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SOME USES OF CHEMISTRY IN THE COOKING WORK.

ONE of the interesting features of the science work related to the cooking is the chemical experiments worked out by the children in answer to the problems which arise. The behavior of foodstuffs under the various conditions incident to cooking suggests many questions to the young experimenters.

A class of young children, cooking vegetables, made a systematic study of their composition and of the chemical properties of their chief constituents, after which they classified the varieties studied into starchy vegetables and vegetables without starch.

Through experimentation the children learned the iodine test for starch; its thickening property and change into sugar (dextrine) through the application of heat; the test for, and the uses of, dextrine; and that starch requires a high temperature in the presence of moisture for cooking. Sweet-juiced vegetables contain sugar, and therefore it is desirable to serve the juices. These and similar facts were the bases upon which the general rules for cooking were worked out.

This class was given "cream of celery soup" to cook for the class luncheon. The celery was stewed and strained, and the juice used in the soup. The children inquired why the juice was used instead of the stalks. After discussing the matter, it was decided to find out what is in the juice which gives the "celery taste" to the soup. The children worked out their method of experimentation and set up their apparatus. Having previously made a study of tap water, the class now decided to use distilled water for the experiment, since they wished to find what the celery gave to the water. The celery was stewed in distilled water, filtered, the filtrate evaporated and the salt found.

Another class of children, making a study of dairy products, found, through experimentation, the chief constituents of milk: fat, sugar, casein, and water. They worked out the action of acid and rennet upon milk, and applied their knowledge in preparing junket, and cottage cheese for luncheon, and, later, in making "whole-milk cheese."

A class working with the flour mixtures in cooking made a study of the composition of the flour and the properties of its chief constituents. This was followed by a study of the formation and expansion of gases and the application in baking. The children made a study of acids as found in the foods, and learned to use the litmus paper to test for acids. In like manner they made a study of the alkalis. In using the litmus paper to test, and coloring it back in the opposite solution, the formation of bubbles was noticed. This led to further experimentation and the discovery of the formation of a gas. The flame and lime-water tests were made, other methods of formation discovered, and the properties of the gas studied. The children learned the use of baking powder in their flour mixtures, and the proper use of soda in baking.

Through this experimental work the children learned to look for the leavening agent in their cooking. They experimented with the yeast plant and found the gas which they used in breadmaking.

Classes in the high school which have not studied chemistry and physics get the rudiments of these sciences through the problems which arise in their cooking lessons. Some of the high-school classes made baking powder, and used it in making biscuit and cake. Students, who have had physics and chemistry, consciously apply the principles in their cooking, and a knowledge of zoölogy and bacteriology also is gained.

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WHAT ATE THE MULLEIN?

It was to me a strange thing to see the odious mullein preyed upon by some herbiverous creature. From my earliest childhood I had thought the mullein the most useless of weeds, obnoxious to all creatures because of its odor, and useful only to young misses to "try their fortunes" by breaking its stalk. I never knew cattle; sheep, or any other animal to take a mouthful of it even by mistake. So when it appeared on the field with many of its leaves eaten away along the outer portion, or cut off smoothly and lying beside the plant, and with sometimes half the bud eaten away, curiosity to know what did it caused the following investigation.

At this season of the year (fall) the mullein grows in the form of a dense rosette (see Fig. 1, *a*), and may be found of nearly any size ranging from four inches to almost two feet in diameter. This plant was not found on moist areas. The field that we studied contained a few mullein in the southeast corner only. This was the highest and driest of the entire field. It seems strange that a plant as bulky as the mullein, and apparently needing a great deal of water, should confine itself to such dry ground. Fig. 1, *a*, shows not only the rosette arrangement of leaves, but also how these are packed one upon the other, four, eight, and even twelve deep. The edges of the leaves, except in the outermost ones, are turned toward the sun, thus preventing by arrangement rapid evaporation. The leaf has also another contrivance to prevent its drying. The leaf, itself thick, is covered with something like fine wool, which gives it a whitish appearance. This makes the packing of the rosette snug, really suggesting warmth. A portion of this, placed under the microscope, resembled a dense, tangled forest. The surface of the leaf forms the ground, and the woolly covering the thicket. The fibers or threads were so matted together that it was hard to separate a single portion, or to examine it minutely. It appeared, upon closer examination, as pictured in Fig. 1, *b*. A single stalk divided into three parts, each of these again into three, then each of these again and again. The usual number of divisions into threes was five. As these stalks were close together, they gave to the leaf a large surface area for dew deposit at night. Every morning the entire forest would be found flooded with water, and overflowing in great beads of dew. Because of the leaf arrangement, it required hours for the sun to dry this out. That, then, is a second contrivance to conserve moisture. Under the microscope these threads appeared but the expansion of the epidermis filled with sap.

Every morning for more than a week I examined the mullein, and again in the late afternoon, but no sign of life could be found, except a little green beetle so nearly its color that it could scarcely be seen. The week was a very cool one. The conclusion was that, if the animals were still there, they fed either at midday or after nightfall.

Saturday was a warm, clear day, and, going out at high noon with the glass, I soon discovered three kinds of depredations, illustrated by Fig. 1, *c* and *d*. In *c* is shown a leaf eaten away or cut off at the apex, also with a portion eaten out of one side. Many of these cuts were fresh, so that it was evident that the animal lurked still somewhere about the field. In *c* is represented a leaf punctured in several places. The conclusion was that they had been made some time before, and the animal had disappeared, or that they were now being made in the younger leaves to increase in size with the growing leaf. In *d* is shown the third kind. This is a young leaf showing various roads cut through its woolly thicket, and the wool rolled up in balls at its base. This injury was surely done by an entirely different animal that cared not for the fiber, but only for the juice.

In the warm bright sunshine there soon was found a mullein infested with little green plant lice. These so closely resembled the color of the plant that, though they existed in great colonies, it was difficult to see them. They were sucking the juices from the little fibers, but there were no traces of their responsibility for the fiber's being cut away. With the discovery of the plant lice came also the discovery of ants following them up. Soon, too, with these were found lady bugs, one of which showed distinctly that she was there for a nice green dinner of fresh aphids. Here, then, was a little colony of animals subsisting on the mullein, but none of which could be held to answer for the injuries noticed.

Close examination of the tender leaves with the microscope revealed what seemed to be a little yellow grub which had apparently eaten its way half through the tender leaves and remained

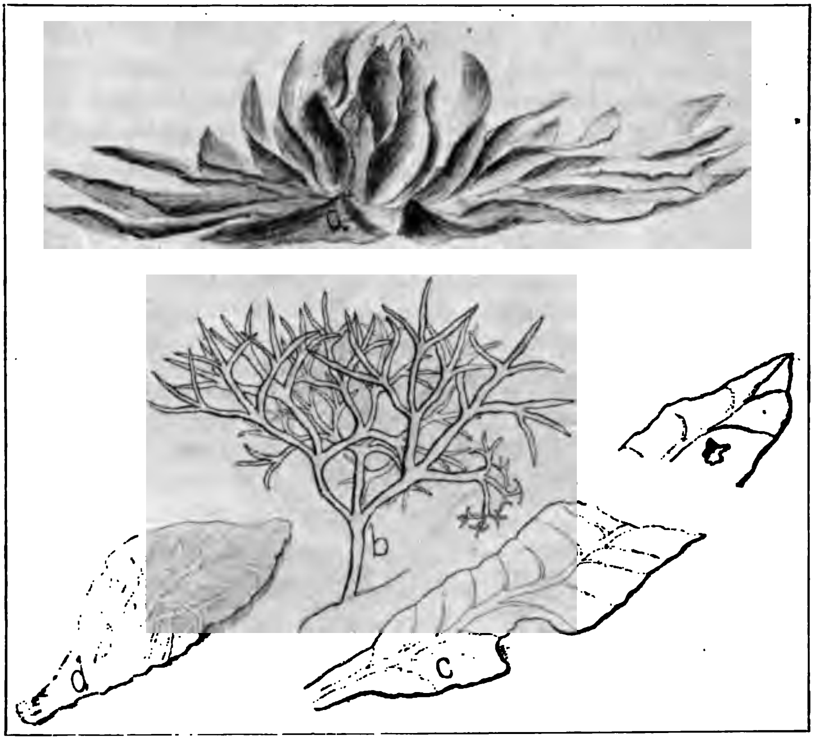

Fig. 1.

suspended midway of the aperture. This grub was then responsible for the punctured leaves. This small hole, made in them when so young, had increased as the leaves grew larger, until its brown, ragged edges greatly marred the perfectness of the plant. So many of these grubs were found in apparently the same position that it awakened suspicion. Closer investigation under the compound microscope disclosed them to be eggs, not grubs. These had been each placed in a puncture of the leaf and suspended midway. It could not be determined whether they were attached by a glutinous fluid, or held by pressure of the leaf on its sides. They did not fall out at the removal of the leaf from its stem, and their delicacy of balance gave them the appearance of being alive. These eggs consisted of a clear liquid covered with a yellowish, honey-combed shell. (See Fig. 2, *c*.)

Farther in the bud the leaves were covered with small black specks which looked like little black "oat mites." To the naked eye these appeared as particles of soot changed by every breath of air. They were wriggling and making their way through the forests of fiber, cutting it off and rolling it up before them as they advanced. This explained the roadways through the forests and the little balls of woolly fiber at the leaf stems. Clearly they had not cut this to feed on. Perhaps they wished to drink the juice which flowed from the cut tubes. This, however, could be only partially true, for the rapidity with which they cut the fibrous tubes and the free flow of sap furnished them a stream to swim in rather than a mere liquid drink.

The eggs and mites were both far in the interior of the bud, where harm could not easily come to them. Once when a bud was carefully opened a small brown bug was seen hurrying away between the leaves toward the ground. It disappeared so quickly that it reached the earth without being caught. Then it was almost impossible to see it, because its color was almost that of the dark-brown earth in which the mullein grew. That was a signal for greater care in opening the buds. Soon many of these bugs were discovered either on the edge of the leaf or down in the bud on the leaf's upper surface (see Fig. 2, *a*).

These bugs were furnished with suctorial mouths about half the length of their bodies. They also doubtless lived on the juices of the mullein, though they did not cut roads through it. Along the edge of the leaves where they were found the fiber was freshly cut away. Some of these bugs were furnished with an apparatus in the abdomen for puncturing the leaves to deposit their eggs. The eggs found, might be the eggs of this bug, but why were the mites with them? The characteristic mark of the mites was a white streak down the back, which at times fairly glistened.

When placed under the compound microscope, they appeared as in Fig. 2, *b*. Surprisingly enough, they were the larvæ of the bug found, and had doubtless hatched from those suspended eggs. Like the bugs, these larvæ had a pair of antennæ on the front of the head, and the body divided into three distinct segments. To the middle segment were attached three pairs of legs, each furnished with a pair of large, flat disks instead of feet. The white streak down the back was the undeveloped wings, fringed so as to act as swimmerets, or gills, perhaps both. The purpose could not be exactly determined. The wings were fastened together about a third of the way down the abdomen, and the other two-thirds of the way they were free and in continual motion. This shows why they glistened at times. This helps to explain also why they cut away the juice-filled fibers so rapidly, and why they acted so strangely when out of their regular pathways.

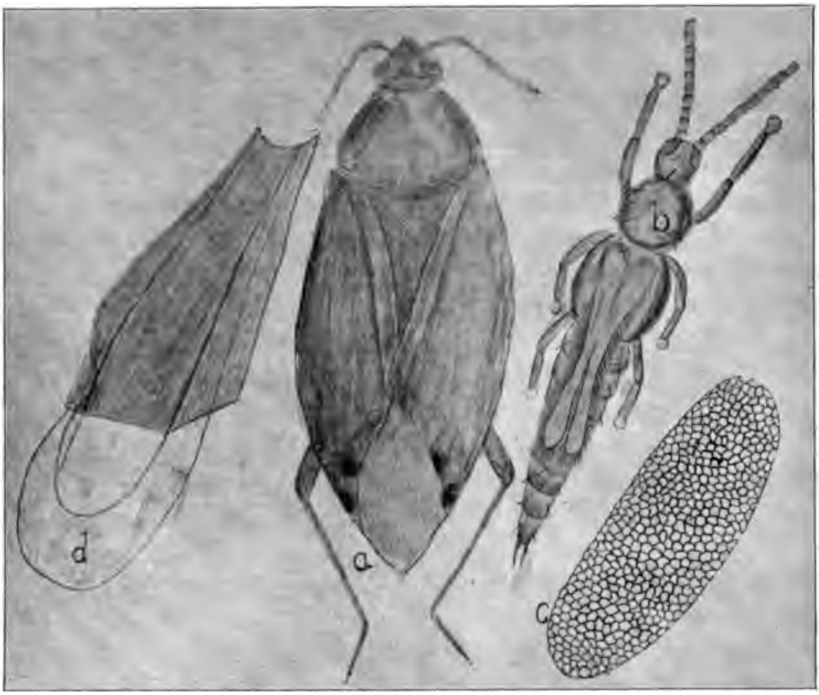

FIG. 2.

Here was a second colony. Its members were evidently to blame for the punctures and roadways; but what had cut those large leaves?

Down among the larger stems near the stalk, and on the ground about the root of the plant, many dead crickets and grasshoppers had been found. It seemed plausible that during the cold nights of the past week they had crawled into the soft mullein for protection, and had either frozen or been eaten by the same animal that had eaten the mullein; for many of them were but empty shells. On a freshly cut mullein careful search was made, but nothing was found except a live grasshopper stowed away in the warmth of the leaves for the night, as it was now growing late and cool. All the freshly cut plants were searched, but still nothing was found except either live or dead crickets and grasshoppers. Imagine my surprise to see a live grasshopper, sitting cosily among the leaves, munching away at a supper of mullein. This, then, was the marauder I had so long searched for and had least suspected. Probably driven by the death of other vegetation of which he is fond, he had begun to feed on this loathsome mullein, and to take shelter under its warm leaves at night, where he died either of cold or of a ripe old age.

This was the third group.

Several other insects were discovered, but between these and the mullein nothing but an accidental relationship could be discovered. There were some little gray moths, such as one usually finds upon dying vegetation at this season. There were in many instances flies; these were accompanied, with one exception, by spiders hiding among the lower leaves. In some cases the spider had a web almost completed. A few gray coleopteræ were found among the leaves.

The bug discovered in the second group, after examination of the wing (Fig. 2, *d*), was classed with the family Capsidæ, order Hemiptera. This is a large family, popularly known as leaf-bugs. No description of this particular species could be found.

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DRAWING AND PAINTING IN CONNECTION WITH NATURE-STUDY.

In regard to this, we come abruptly upon the necessity of the art materials being at hand. Pencils, paper, paints, brushes, and a can for water should be kept in the desk, to be used by the child at the moment he is ready to make his drawn or painted record in nature-study. It is of the greatest importance that the child should not be in awe of these materials, but regard their presence as he would that of pen and ink.

He should make his pictorial record in the same free way in which he makes his written record. There should be no loss of interest through postponing the drawing until a special teacher comes to direct it. While guidance is desirable, there should be no waiting, as if it were impossible for the pupil to do it without direction.

Through the drawing or painting there is produced the visible token of the child's attention and observation. Facts of color, shape, and proportion which the child could not manage in a written or oral description are thus grouped in this universal language. In the constructive work there is no delay in the work of the individual because others in the class are not at the same point, and it seems unwise to have any delay in the child's making of the painted record because others are still engaged in observing, or writing upon, the subject.

The importance of the habit of making these pictorial records can hardly be overemphasized. Drawing and painting should be taken as a matter of course; and written records of nature-study should be regarded as incomplete without the drawings and paintings to accompany them.

The ideal succession would seem to be, first, observation of the object, then a memory-drawing of it. A comparison of the drawing with the object will reveal where the observation was defective. A new drawing, this time from the object, should be succeeded by another memory-drawing. At this time the scientist is needed to examine the drawings to see that the scientific point has been made. It would be well then to show a drawing of the subject by the art teacher. The children would by this time be able to look intelligently at such a picture, having studied the points which the picture contains, and would form ideals for future work.

Learning to draw equals learning to see. A drawing is a conclusive proof of the extent of the pupil's power of seeing. As the child learns to see, it is for the trained minds, guiding him, to give him those things to see which will be of value to him. Nature-study is rich in this subject-matter for seeing, drawing, and painting. It is not to the world of still-life or changeless casts that the child is turned. Nature-study invites him to the drama of bud and leaf. The child's drawings, in series giving the effects of the workings of physical and chemical principles, show that there has been revealed to him the movement and change taking place beneath nature's apparent calm. In gazing at nature he has some knowledge of what has been and what is to come. While it cannot be expected that the field covered be extensive, the study opens the eyes, and becomes the foundation for a habit of observing nature, truly a source of noble enjoyment.

Frequent paintings of the landscape — showing its changing appearance owing to time and season — enable the child to realize what is going on in a general way, at the time that he is studying a particular detail. In the case of the city child especially, how charming, through drawing and painting, to strengthen his impressions of some beauty of nature. Otherwise the advertisements of the great city — gigantic cooks and Quaker gentlemen — might reign in his mind in majesty, as the unvarying concomitant. The city child's impressions — of trees in the sidewalk like lamp-posts, and of flowers having their habitation in the florist's ice box, and of the glorious sunset going on behind the next row of apartment houses — are far removed from the more fortunate impressions of the poet and artist. The very babies can draw trolley cars on the blackboard.

One phase of the utilitarian value of drawing and painting in connection with nature-study is the importance of thus gathering knowledge of forms and color combinations which can become later the *motifs* for creative work in textiles, furniture, decoration, and architecture. This is the point at which the work turns from a scientific into an æsthetic problem. The child will now have to consider the limitations of material as affecting design. Consequently he will find that he must change his method of drawing from the realistic or the diagrammatic to one in which, through calling into play his selective activity, he is essentially personal and artistic.

We cannot fail to recognize in drawing and painting in connection with nature-study its value as an instrument in science, as a training toward appreciation of literature, as a basis for expression in creative literary work, as a necessary possession for those who would create in the fine and applied arts.

One of the interesting results of the combined studies upon this subject on the part of the psychologists, those guiding nature-study, and the artists, is that the methods taken up are remarkably eastern. With the exception of the lectures upon anatomy, knowledge of the surface appearances has been deemed sufficient in the usual art-training in our country. Fourteen years ago, Theodore Wores and John La Farge told us of the methods of drawing and painting in Japan. Theodore Wores speaks of their writing being in itself an art education. In our case, the drawing and then memorizing of the written alphabet is, owing to the small number of characters, a slight drill compared with the writing of the Japanese. Keeping in mind their custom of memorizing these characters, it seems in their case a natural step to the Japanese theory that "a painter should spend a great deal of time in observing nature, and when he had thought out his picture perfectly in his mind, and was saturated with the subject, then he should seize his brush, and dash off the picture in a few hours or minutes."

I have been told that the Japanese artist learns how it grows, and then makes it grow; that is, he masters the characteristic features of a plant, and then draws, repeating and repeating these characteristics until the wealth and intricacy of nature seems revealed to us by the artist. The nature-study preceding the painting has freed the artist from the fear of making mistakes, and he is therefore more at liberty to think of the æsthetic effect, and produce a work brilliant in technique. Here we have that combination of nature-study and memory-drawing which has been so strongly urged by educators.

It seems inevitable that there should be, because of this educational problem, a reaction upon the art schools. In order to make more effective the art-training in our country, the university and art school should work together for the common good. Then the university, sharing with the art school its treasures of information, could itself be assisted to present many of its subjects more effectively.

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RELATION OF NATURE-STUDY TO CLAY-MODELING.

It has been the subject of some comment that the art work done by children of the eighth grade is scarcely less crude than that done by first-grade children. The drawings of the older children show less naïveté than those of the younger children, but there is very little compensating gain in technical skill. And yet the children have industriously and with unabated enthusiasm drawn, painted, and modeled through all of the intermediate grades. These results have been the more surprising in view of the fact that school conditions would seem in some respects to be almost ideal for the study of art.

No better basis could be found for the study of composition than that offered in the work now being done in history, literature, and dramatic art, and no better opportunity for the close study of natural forms than in the field of natural science. Students of design should find a wealth of material in the field and under the microscope in the nature-study laboratory.

Perhaps the most encouraging results of this work in schools have been obtained in connection with the nature-study; and in this fact may be found a clue to the situation. Much of the drawing or modeling in the field has necessarily been hastily done. This sketchy work is, however, supplemented by a more careful study in the laboratory from living specimens brought to the school for this purpose. For instance, while studying the swamp, frogs and other living creatures found on this area have been kept in aquaria and modeled with the idea of making as complete a record as possible of the life of this region, and in order, also, that a study, at close range, might be made of the structural adaptation of these creatures to their environment. If all of this material could be utilized by teachers of art, it should be possible to dispense entirely with the so-called "still-life studies" modeled for the purpose strictly of acquiring technical skill. There should be, in other words, an abundance of "still-life studies" which are

vitalized by their connection with other work
fact an actual necessity of the other work.

An effort is now being made to provide, in
human figure also, conditions which will offer
between the "life class," in which the entire cla
model placed by an instructor in some more or
pose, and the "free expression," which forces tl
representation of the human figure to draw e
meager information which he may have acquirec
vation. These conditions should be possible in tl
required in the study of history and literatur
desirable in studying history, for example, that
group model at the same time a different phase
ject. Each child, having his own composition in
the privilege of posing the model himself, in or
in this way, answer the questions that may have
in an effort to express his own thought. The f
instances one model must serve an entire grour
distinct advantage, since no student can for a
work directly from the model.

Children need constantly to be brought into a
sympathetic relation with nature, and it is to
"nature-study" that we must look for much o
this direction.

The great sculptor and equally great teacher
once asked by a group of students for some hel
composition. "Ah!" said he, "that I cannot gi
composition? Take your sketch-books, stand at
and study the grouping of children at play, of
gossip on the curb, of the men who gather arou
has fallen in the street — that is composition —

ANTOINETTE I

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NATURE-STUDY AND MANUAL TRAINING.

Every child should have an intelligent acquaintance with our common woods, that he may recognize them in the interior furnishings of any building and in ordinary articles of furniture: nor should the simple reasons for their beautiful markings be a mystery to him. The manual-training room is one place where much of this information may be quietly and naturally imparted, and as quietly and naturally assimilated, without any forcing of the subject on the part of the teacher.

When the children of the third grade were asked to name all the trees they could remember, the result was sixteen varieties, and they were much surprised when told that in the United States alone five hundred kinds were native. The question easily followed: "How many of these do we use in the manual-training room?" and it was found that from eight to ten different woods were commonly in use there. Immediately came the suggestion: "Let's get a collection of all the kinds of wood we can." There are few children who are not interested in making collections, the choice of the objects depending upon age, season, or environment: and this proposal met with general favor. The same day a party, armed with saws, set out to sample all the varieties growing within the radius of a block. Perhaps the locust tree furnished the most food for reflection that day. Although a small tree, the boy who had selected it as the one he would sample decided to climb it in order to saw off a piece. A speedy discovery of its strong thorns followed, and brought a group of interested observers to advise and warn him. After an expedition lasting three quarters of an hour, the return was made with specimens of oak, elm, cottonwood, willow, pine, locust, maple, and cherry. At the suggestion of one child, a leaf of each tree had been gathered together with the specimen of wood. In the schoolroom each piece of wood was examined, and its color, texture, and the character of its bark were remarked. Each sample of wood and leaf was properly labeled by the child who had brought it, and the collection of woods was begun. Since then the children have brought in samples of wood found near their homes, and in time the seed of these different trees is to be added.

A trip was made to the Field Columbian Museum to see the collection of woods there and the manner in which each piece is cut in order to show the bark, the annual rings, the grain, the medullary rays, and the difference between heartwood and sapwood. The age of a tree nearly a century old was determined by a count of its annual rings, and that of a giant bamboo by a count of its nodes.

In Sweden the lumber for manual-training work is frequently procured by chopping down a tree in the immediate vicinity of the school. It is split, seasoned, and, as necessity demands, worked down to planks of the desired proportions. If we were able to command such an object-lesson, the knowledge of the tree in its environment, with its various characteristics and peculiarities, its likes and dislikes, its neighborliness to some things and its unneighborliness to others, all its attributes which make it seem almost human, might unconsciously become a part of the child's equipment. To some children a plank seems but a plank, nothing more, nothing less; proving much the same quality of ignorance as is cited in that old story of the child who learned to her great surprise that cows gave milk — she "had always supposed the milkman brought it."

In the first grade the Christmas presents were generally made from holly, walnut, or bird's-eye maple. It was interesting to note the various remarks as different woods were selected. One chose holly and thought she "would use red ribbons, the color of the berries." Another had walnut, and as the pungent odor came to him of the freshly sawed wood, he exclaimed delightedly: "It smells just like the walnuts!" Another said he "liked the maple wood because sugar came from that tree, but did not care for the little spots in the wood," meaning the curious twist in the fibers, which gives to it the name of bird's-eye maple. We talked of the relative features of the three trees: the short holly tree, with its gray bark and beautiful dark-green, glistening leaves, with the bright red berries showing here and there; the large walnut tree, with its great crown of leaves and branches, its black bark, and brown rough walnuts; and the maple with its bark and beautiful crown of leaves, in size neither so large as the walnut tree nor so small as the holly. Colored crayons and paints were used, and pictures were made of any tree that had particularly interested the children; and later they made pictures of the three trees, showing their relative sizes. The holly was a great favorite, perhaps because one of the rooms in the building had just been decorated with holly, and the memory was fresh; or perhaps because of the brightness of the red berries and green leaves. While the pictures were crude, they showed the feeling the six-year-old child had concerning the tree, its size, and its offerings of berries and fruits. In one of the illustrations the small artist explained "that the maple tree did not have nuts on it, but some leaves were darker than others."

At the time the large pine-wood sandboxes were being made by the children of the third grade, they complained of the number of knots and knot-holes in the wood; whereupon one little boy made haste to explain that these were caused by branches on the tree, some of which had been trimmed off when the tree was chopped, and some of which died and dropped off or were blown off, as the tree struggled among others for room and light.

Working "with the grain" is another fertile text for a lesson in nature-study, capable of various applications. Even the smallest pupil understands when told that the tree grows upward, composed of many small thread-like fibers, held closely together within the snugly fitting bark; and that when these fibers are rubbed backward, or "against the way they grew," the result will be a roughening of the surface, and that the solution of the difficulty is to plane or stroke in the other direction, "the way it grew." During one of the recent class conversations on the subject of the grain of the wood, a fifth-grade boy announced "that he was glad to know at last what was meant by the expression 'a cross-grained man'." The smallest child is pleased when his attention is called to the fact that the fiber growth is in one direction, as is the cat's fur, which is roughened or smoothed by rubbing it the wrong way or the right way. Sometimes the mistake is made of sandpapering the completed article across, instead of with, the grain. When the scratches appear, the reason is readily understood if some small boy's head is stroked from the crown toward the forehead, smoothing the hair; or across the head, from one ear toward the other, roughening it. One boy told the class with surprised pleasure that he discovered that plaining around a knot in the wood was like smoothing the hair around the crown; "smoothing just one way wouldn't do."

The pupils very soon become critical and fastidious judges, and able to select a beautiful piece of wood, suitable for the end in view.

The older grades may receive more detailed instruction. Passing from the simple lessons given the younger children, with reference to fibers, annual rings, medullary rays, and the practical and poetic significance of heartwood and sapwood, to the more scientific lessons pertaining to botany. The tree may be treated as a plant, a member of a large community of trees, with habits and mannerisms influenced by the circumstances of country, soil, and climate.

By following a tree from the logging-camp to the schoolroom, valuable lessons may be gained in botany, geography, the laws of mechanics, and political economy. The contribution a tree makes toward the necessaries of life is a lesson — its use for building purposes, for fuel, paper pulp, textiles, gunpowder, various chemicals, tan bark, turpentine, resin, nuts, and even sugar. A tree is also of interest as the home of myriads of living creatures.

Indeed, all handwork, which of necessity employs materials gathered from the earth's resources, is but an exponent of nature-study. The fundamental law of nature — creating, and creating with some definite purpose — is most clearly demonstrated in the manual-training room.

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THE USE OF TRAVELING MUSEUMS IN THE PUBLIC SCHOOLS OF CHICAGO.

THE traveling museum has been on trial for two years in the Chicago public schools. Under the direction of a voluntary organization of school principals, it has proved a very useful aid in the teaching of geography, nature-study, and other subjects. As a result, the Chicago Board of Education has given it official recognition, and has intrusted its further development to the Chicago Normal School.

At the time of the Columbian Exposition many Chicago teachers obtained valuable museum material for use in their classrooms. They soon recognized, however, that specimens alone do not constitute a museum. Pictures must be added, and text interpreting the material exhibit. Where did the specimens come from? Under what conditions were they produced or obtained? What is their relation to man's life and to his work? These and many other questions needed to be answered in a simple, direct way, if the material was to prove useful in teaching. The interpretation of a wide range of museum material involved more work than the teachers in any one school could undertake; and it seemed a useless expenditure of time for each school to advance independently and duplicate many parts of the work that need be done only once if the results could be shared by all of the schools.

With these considerations in mind, a movement was started by the Chicago Principals' Association, in 1901, to enable all of the Chicago public schools to co-operate in the preparation and use of museum material. The originators of this movement believed that, under competent direction, a moderate expenditure of time and money would result in developing a valuable series of small museum collections illustrating definite topics in the course of study; and that these collections could be circulated among the schools according to a prearranged schedule that would keep each museum in constant use throughout the school year. The Principals' Association indorsed this plan and appointed a committee to provide for its realization. In May, 1901, the committee formed an organization, known as the Chicago Bureau of Geography, which had for its members about forty of the Chicago public schools. The funds needed were contributed by members or obtained from private sources. Headquarters were established in the building of the Chicago Academy of Sciences in Lincoln Park. A considerable amount of material, including specimens, pictures, and interpretative text, was gathered together and under the direction of practical teachers was grouped in small, monographic collections.

At first the problem of classification appeared to present serious difficulties. Each collection must be complete in itself — an independent unit illustrating a definite element in the course of study. Duplication of material must be avoided, if possible, so that classes might use the collections in a progressive series. At the same time the material selected must be typical in character and simple enough to be within the comprehension of pupils in elementary schools. Geography, history, nature-study, manual training, and the domestic arts, all included topics that could be illustrated with the aid of museum material. The directors of the bureau decided, however, to confine their efforts at first to illustrating topics in geography, and to use as a basis for grouping the material the classification of raw products which is used by the United States government in its official publications.

Experience soon showed that the success of the plan depended very largely on the ease and promptness with which collections could be transported from school to school. Chicago spreads over an area of one hundred and eighty square miles, and nothing short of a complete system of free delivery would make it possible to use the collections in all parts of the city. So the headquarters of the bureau were moved to the supply-rooms of the board of education, and permission was obtained to use the supply wagons of the board, which visit each school once a week, in delivering and returning collections.

Each school which had joined the bureau was asked to prepare a schedule showing when it desired to receive certain collections and how long it desired to keep them. The museums were booked in advance, as nearly as possible in the order indicated by these schedules, and a copy of the bookings was sent to each school, so that the teachers might know when the material illustrating a given subject would reach them. In this way it became possible for teachers to make systematic use of museum material without giving any time to its preparation. For example, a silk collection could be obtained when France, China, or some other silk-producing country had been reached by geography classes; an iron collection, when the industries of England were under discussion; or a comprehensive body of material illustrating the Philippines, when classes were studying our island possessions. The workers in the bureau were themselves teachers and could test the material in the class-room before starting it on a journey among the schools.

It may be of interest to teachers outside of Chicago to know something about the sources from which material was obtained for these collections, and the methods of installation which made it possible for specimens to be examined by thousands of children without being destroyed. Nearly all of the specimens came from importers, manufacturers, and dealers who were handling the great staples of commerce and were willing to present to Chicago teachers the small quantities needed by the bureau. Frequently the same firms were able to supply, in addition, advertising material containing illustrations that were admirably adapted for use in supplementing the specimens. For example, the McCormick Harvesting Machine Company presented samples of Sisal and Manila hemp, and the binder twine made from both fibers; and copies of an illustrated twine catalogue and of a book containing one hundred harvest scenes in all parts of the world. The twine catalogue gave a good description of the production of Sisal hemp in Mexico and of Manila hemp in the Philippines, the transportation of both to Chicago, and each successive step in the transformation of the two fibers into the binder twine. The hundred harvest scenes included beautiful views from twenty-eight different countries in which wheat, corn, hay, and other crops are harvested by hand or by machines. To this nucleus the bureau added a fine series of pictures, with explanatory text taken from a pamphlet entitled *Some Useful Plants of Mexico,* by J. N. Rose, published by the United States Department of Agriculture; together with pictures from several other sources, and a leaf of the century plant partly combed out so as to show how structural fibers are separated from the fleshy parts of the plants in which they occur. The resulting collection was used in a variety of ways by different schools: (1) in teaching the climatic conditions, the products, and the native industries of Mexico; (2) in teaching about the Philippines; (3) to illustrate methods of agriculture in all parts of the world; and (4) to show how a great Chicago industry reaches out to the other side of the world for raw materials, transforms them into useful manufactured products, and then sends them to every farming region in the world.

In a similar manner collections were formed to illustrate other great staples of commerce, including the more important food products of vegetable origin, food products of animal origin, raw materials of vegetable origin, raw materials of animal origin, products of the forests and of fisheries, mineral products, and products of manufacture.

Government documents proved to be an almost inexhaustible source from which to obtain pictures and text to illustrate and interpret the specimens. A simple enumeration of the titles of the government documents used in these collections would expand the present article far beyond the limit which has been set by the editor. Such a list would, however, furnish an exceedingly valuable clue to one means by which any elementary-school teacher can obtain without expense an equipment for the teaching of geography that would be of great service, not only in her own preparation, but also in the class-room work of her pupils.

After numerous experiments, the workers in the bureau developed a plan of installation that proved to be very satisfactory. Certain standard sizes were adopted for each of the installation devices needed; and, as far as possible, only those sizes were used in preparing the ten thousand specimens, pictures, maps, and printed articles that have thus far been placed in the collections. Specimens were put into four-ounce wide-mouthed glass bottles with flat corks; pictures were mounted on gray cards, ten by twelve inches in size; magazine articles and clippings were placed in strong Manila covers or mounted on perforated Manila sheets of uniform size and bound together with brass fasteners; additional text was typewritten on white sheets and bound in covers made from the Manila sheets; each specimen, picture, and article was carefully labelled and assigned a separate accession number; and a typewritten catalogue was prepared so that teachers might see at a glance what material a collection contained as soon as it entered the class-room. Each kind of material — specimens, pictures, and articles — was placed in a separate box made of heavy pasteboard reinforced at the corners with cloth; and these boxes were inclosed in an outside wooden box that could be transported from school to school without danger of injury to its contents.

During the year 1902-3 the bureau sent more than eleven hundred collections to sixty different schools; and before the year closed applications were received from forty-five of these schools for over fifteen hundred collections to be used in 1903-4. The demand for the material had increased so rapidly that the directors of the bureau were obliged to reject a considerable number of new applications for membership, because it was impossible for volunteer workers to prepare duplicate collections fast enough. When the present school year opened, the pioneer stage in the growth of this work had been completed, and responsibility for carrying it further was transferred to the Chicago Normal School.

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THE HOUSEHOLD ARTS IN THE ELEMENTARY SCHOOL.

THE introduction of a new subject into the curriculum must necessarily call forth questions as to its desirability, and perhaps engender marked opposition from those who believe that the curriculum is already overcrowded, and that there is a tendency toward fads in our school system. In many communities the teaching of household arts has not passed that educational stage where its introduction into the school seems justifiable. The question is not wholly one of the possibilities of subject-matter. There is also a doubt, even in the minds of those who believe that the household industries should be taught to our boys and girls, as to whether the school is the place for such instruction. Housework may be an excellent method for training children in responsibility, and yet be entirely out of place in the school curriculum. Unless it is true that this work contributes distinctly to the training of the child, and that it has its full value only when taught in connection with other studies, and with groups of children, we can hardly claim room for it in a course of study which already has so many contestants for place. That the household arts do fulfil these conditions as subjects for study seems to me true. In common with manual training and laboratory work in general, the household industries are valuable as a means of giving the child control of material — power over things. This means accuracy, skill in manipulation, muscular control; and, more than this, it means the development of a sense of power in the child, that will do much toward making him efficient in after-life.

Another important reason for instruction in household arts and science is the fact that these often furnish the motive for other work of a more formal character, and through this motive vitalize these subjects and add greatly to their value. Number-work done because of the need of solving a particular problem in order that interesting work may be completed, gains a meaning that it never had before. History and geography not only aid in the right understanding of hand-work, but receive direct contributions from it. Many problems in science are suggested by the need of an explanation for phenomena observed, or are presented for solution in order that some process may be rightly carried on; and both textiles and the study of food furnish a large number of such problems, and give opportunity for various applications which make scientific theories and principles a part of the student's working equipment. Not only may a very direct relation be maintained between the study of food in its various phases and the observation of seasonal changes, of the growth of plants, and of their relation to animal life, that constitutes much of the material of nature-study; but this relation is so real, so natural, and so mutually helpful that it is difficult to understand why it is so often neglected.

These advantages the household arts share with several other subjects, but one is pre-eminently its own. In nothing else, perhaps, is the social life of the school more directly maintained. Not only is it true that by means of this work children are brought into more social relations with one another, but it is not too much to hope for a larger social result. The interest in the life of the home, which sometimes seems to be in danger of disappearing from the lives of our children, is fostered by the study of the household industries, by the carrying on in school of processes so intimately connected with home life; and the center of social interest, which seems to have been transferred in these latter times from the home to other institutions, may again return to its normal position. If this might be so, it would tend, not to narrow our lives, but to broaden them; for the home must always remain the fundamental institution of society, and in it must be trained those who are to be efficient in promoting a larger social righteousness. This alone would justify the attention paid to this subject.

Nor, under modern conditions, are these objects attained so well by the simple sharing by the child in the work of the home as by direct instruction in the school. Right teaching should, indeed, increase, as it generally does, the desire of the child to take part in the processes going on in the home; and if this desire be encouraged, instead of discouraged by unwise parents, as it often is, the value of the school instruction is greatly enhanced. The disadvantage of substituting home instruction for that of the school lies partially in the fact that the industries in the home are usually carried on in a very limited way, often under conditions that take no account of modern scientific methods, and in the majority of cases under the supervision of someone who could hardly realize the educational possibilities of the situation, or give time and thought to the solution of the problem, if she recognized it at all.

There is also a distinct gain from the social side, when the school offers this instruction. Not only does the work itself gain in interest when it is shared with others of the same age and experience; not only is the social life of the school itself enriched; but the very fact that household industries are thought worthy of a place in the school curriculum lifts them to a different plane in the child's estimation. This revaluation can hardly fail to have a definite reaction upon the home. Not only may the girls come to see that the work of the home is worthy of their best efforts, but the boys, both in the elementary and the high school, who have shared in the instruction, have shown in many cases a distinct change of attitude. To attain the best results, the work should not be confined to cooking and sewing, or even to the broader study of food and textiles. Even on the material side food and clothing represent individual life quite as much as that of the family. The problems of shelter must be added to complete the cycle.

The homes of other peoples both in primitive and modern times; the influence of modern discoveries and inventions upon our own homes; the problems of ventilation, heating, and lighting; of water supply and the disposal of household waste; the application of art to the furnishing and decoration of the house —all these phases of home life, and many more, furnish abundant material from which to select that best adapted to particular conditions. Problems of physics and of chemistry will frequently present themselves for solution; hand-work in art, and in woodwork will be found a necessity. There need be no attempt at an artificial correlation, for the correlation will be real and inevitable. Our home life, after all, on its material side is but the application of arts and sciences to every-day life, and its failures come from the neglect to make this application.

The higher, more spiritual side of home life we may not be able to teach in the curriculum of the elementary school, but the insight into the possibilities of the material side may well lead the children to an interest in their homes, and a love for them, that shall contribute by and by to a spiritual ideal. There may be gradually developed in them a realization that the home is more than an aggregate of shelter, food, and clothing, and so another illustration be given of the great principle that the life is more than meat, and the body than raiment.

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SOME PROBLEMS IN SCHOOL HYGIENE.

NOT the least time-consuming and nerve-wearing question which confronts the elementary-school teacher is just what supervision she is to assume over the health of the pupils, and how far she is to insist upon right habits of action both at home and in school.

It has been an axiom in all public-school work that manners and morals are a part of the curriculum. The details of food and clothing, being as personal as religion, were left to home influence. But with the increasing belief in social responsibility and in the moral effect of unsanitary habits, the teaching of hygiene has assumed a new importance. Baths have been added to schoolhouse equipment, and cooking and daily care of rooms have been considered not out of place because of the added health the knowledge and the good habits will bring. In view of the danger of infection and contagion, the teacher must be a voluntary inspector and watch for indications of disease, must be able to distinguish an ordinary cold from the approach of fever. She must see that fingers with a burden of bacteria do not go into eyes, noses, or mouths; that books, pencils, and desks are free from germ-laden dust.

These little details require a very different attitude of mind and a wider range of knowledge than mere text-book instruction; but this side of the teacher's duties seems, from the social-science point of view, quite the most important when dealing with children under twelve, during the time when habits are forming and before the muscles stiffen. Where there is a gymnasium and department of physical culture the care of body and head and feet comes naturally into the curriculum.

If it is difficult for the teacher to control home surroundings, and to obtain her pupils in the right condition on their arrival at the school, it is usually still more difficult for her to secure the right surroundings to receive and keep them in. Dusty air usually greets the warm, moist throats and noses on entering the building, because the care-takers find it convenient to flourish the feather duster just before school time. Dust in the air does not show. Dust on the desks and tables betrays itself. Finger marks are not thus "dusted" off, and unless desks are wiped, germs may be conveyed from one to another of the little ones who have not outgrown tactile or prehensile tendencies. The great prevalence of catarrhal affections among school children points to the effect of the dusty air which they are forced to breathe. Even if it is otherwise harmless, chalk, gritty street dust, as well as that rising from ill-kept floors, contributes an irritation which may become serious.

Erismann gives three requirements which school floors should meet: (1) they should be poor conductors of heat; (2) they should allow of little dust; (3) they should not absorb liquids. He recommends, as the ideal schoolroom floor, parquetry of well-dried oak, dressed with wax dissolved in turpentine well rubbed in. Besides the daily brushing, the floor is to be rubbed down twice a week with dry wax. American school construction and conservation have hardly reached this stage.

The substitution of antisepsis — sterilization of infective material — for disinfection or deodorization must be insisted upon. Primitive man masked repulsive odors by burning of incense; prevention of odors by cleanliness is the modern rule.

The arrangements of clothes-hangers and dryers, the direction of air currents, the temperature and general cleanliness of the building, are often all beyond the teacher's control. The energy wasted in trying to accomplish results under circumstances needlessly averse is pitiable. When, however, the majority of teachers know what to demand and how to care for the right thing, it will come.

The child is taken from under the blue sky, from the freedom of the green fields, from the bright flowers and the sweet breezes, and confined, against his will, within four walls in close air, with light in his eyes, and kept in a cramped position over his tasks. It is a cruelty to animals, even if it is justified by the development of the best human individuals.

The power which does this, be it the parent or the state,

should see to it that the confinement should be u
ditions possible to science. The schoolhouse sh
up-to-date building in town, and its care-takers t
in modern sanitary requirements. Becker's inve
man schools showed a direct relation between f
ache. In a school with 2 cubic meters' air s
found that 44.6 per cent. of the pupils had hea
school with 6.8 cubic meters' air space only 4.7

Given a suitable building, the teacher nee
only with the personal habits and surrounding
Cleanliness of hands and faces should be made,
but easy by accessibility of water and towel
winter). Door-knobs and hand-rails would
great menace they are now. Wooden wedges s
for the cleaning of finger nails. It is unwise to
but an impression must be made upon them a
certain kinds of dirt. The childish habit of mo
must be overcome early.

I hear the teachers sigh over this nursery-n
and where there are competent nursery maids a
not be required; but if the school is to fill the g
home-training, this sort of social service must b
its walls by someone.

There are many unsolved problems of const
agement yet to be worked out. Sufficient ve
drafts and without dust, is one of the most se
method of securing fresh air is for it to come
openings in the floor and, rising to the ceiling,
of the lightness imparted by the heat it recei
brought in on feet and clothes, falling into the
this impracticable. The conduction of noise b
the method impossible for buildings of more
When street-shoes are put off at the door, and w
are the rule, this plan may be considered.

A school problem by no means solved is that
the country the noon hour of the central scho
health and morals. Cold food, promiscuous m

demands investigation and helpful suggestions for the overworked teacher. In city schools, how far some provision should be made for a free supply of simple food, and under what auspices it should be furnished in any case, is still under discussion. The conviction is growing that the luncheon of the child at school is one of the most important factors in mental development, if that is not to take place at the expense of the physical. Besides, food habits may be inculcated which will offset the lacks in home-training. But while it is usually considered allowable to call a physician to help a curved spine or a defective eye, to give needed food is "pampering." If the pupils are from the class which habitually overeats, remonstrance is needed, and a faithful teaching of the lessons of modern science to enforce simple maxims.

When one goes back to the early reports of the state boards of health of the seventies (of Wisconsin as late as 1879), and reads of the disgraceful conditions of the country school, one is thankful for so much advance as has come to us, and one is only eager to carry on the improvement until the school shall be the powerful social center of all good influence.

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THE VALUE OF HOUSEWORK IN TEACHING RESPONSIBILITY.

It is now a generation and more since the middle-aged city dweller awoke to the fact that his sons, on whom he was lavishing the education that he as a hard-worked country boy had longed for in vain, were not being made by these "advantages" into such remarkable youths after all. Exemption from wearisome hand-labor had not resulted, as had been hoped, in clear and vigorous thinking. The abstract truths of text-book and lecture were often feebly grasped by these lads who were not deft of hand or quick of resource in an emergency. And then we saw the beginning of manual training, the effort to use the elements of the carpenter's trade for developing eye and hand and brain together. It was recognized as a need that must be met; for the farmer, in exchanging his occupation for work in village or city, had left behind him all that had given, unconsciously to himself, the development now found to be lacking in his son.

For the girl there remained the training in household arts under her mother — arts much restricted as compared with those practiced on the farm, but still affording good teaching material. But more and more these arts have dwindled in their scope; other things have filled the time of both mother and child; and, applying the lesson learned on the boy, we have added courses in home economics to our school curriculum. These courses have applied order and method, have brought to tradition and custom the invaluable touch of science; and we have counted all this change as progress. But now the question arises: If we continue to yield to this centrifugal force that is hastening work out of the house and forcing us into cramped "non-housekeeping" quarters, can the loss be made up by any system of formal education? What are to be the surroundings, the activities, the teaching plant, so to speak, which is to be used in bringing about correct habits and a sense of responsibility? What form shall the thousand influences take that are to mold character in the early years?

We are suffering from our one-sided view of education, which seems to deal only with certain unrelated mental faculties, to the neglect of moral and social development. The whole difficult application to daily life, the bringing up of good citizens, all this is doubtless hard to compass by educational machinery. It is best done through the intimate and personal touch of the parent in the privacy of home relations; and many parents strive nobly with precept, both in and out of season, but often miss the example in which precept should be voiced. It is so much easier to preach than so to manage that natural laws shall teach the needed lesson; so much easier to give for the child than to let him acquire the self-denial and judgment that would come from his own giving; to plan and buy his clothing, and all other necessaries, rather than suffer the loss and mistakes that will come while he is learning to buy.

In our zeal for good housekeeping we have come to mean by it a certain product, without regard to the effect on those who have wrought it—a case in which the by-product, as the chemists say, is the most valuable part. Thus, she whom we call the capable woman, whose touch is rapid and sure, has no patience with the slow and clumsy ways of a child nor with the unskilled product of her hands. The end in view for her is the neat house, the well-cooked meal, not the development of the child. She is weighted by the long list of things to be done, and the fear of her neighbor's judgment of her as a housekeeper; so she sends the little one out to play rather than take the time to teach her. And the result is that the famous housekeeper is often found, to the surprise of herself and her friends, to have brought up incapable children; while a selfish or invalid mother may be blessed with a son or daughter so efficient as to upset all our theories of heredity and training.

The reason is not far to seek. Given an active little brain and hands, and a disorganized household, with work crying out to be done; the connection once made, achievement follows and pride in it; and there are no highly developed adult standards to shame and discourage by contrast and criticism. Responsibility develops, and an ardor in the doing.

A little girl of eight was seen recently in a tenement caring with great intelligence for a sick woman and baby.

This is, indeed, a left-handed way of developing noble qualities, and it succeeds only with the unusual child; but it illustrates the blind working out of these forces.

The intelligent, adult mind should be able to do far better with educative material such as is offered by the daily tasks and happenings; but let us not deny the difficulty of doing it, when necessity does not hold the whip. And this is the great argument for keeping our lives on simple and natural lines.

It is harder for the man of wealth to train his children in habits of industry. If there is a hired man to attend to the lawn, it is more difficult to make the boys clear away the remains of the fireworks. It is a cunning mother who can successfully appeal to the children to go outside and tell her when the curtains are draped properly. It is a resolute one, indeed, who will refuse to let the seamstress make the garment which has been set as the task for the indolent little girl. It is easier to do it all at one stroke — for a family used to the ease of city life in the winter to move to a simple farmhouse and get on with almost no service for the good of the children in the summer. Here stern nature teaches, as manufactured punishments cannot. In such a summer home a very careless little boy was confronted with the scarred visage of a rusted tool, a favorite one, which he had left for days out in the rain. The harrowing sight, aided by a sharp reprimand, sent him to his room in tears. A well-meaning relative strove to comfort, but the little battler with a bad tendency made this valiant reply: "If you'd got such a bad reputation as I have for forgettin', *you'd* cry too." Here a boy may learn that, unless he splits the kindlings, there will be no fire in the morning. The girl will see that, unless she learns to cook a certain dish, there is no one else to do it.

We hear much of the advantage of games, such as football and basket-ball, not only for the development of the body, but for training in self-control, fair play, etc.; but do they teach the lessons that a boy or girl can learn at home in the care of younger children, so that the mother may rest; in preparing food that is to be afterward enjoyed by the whole family; in helping to make a room spotlessly clean and neat, that it may diffuse for family and guests that sense of refinement which cleanliness and good taste can lend to the simplest furnishings? It is such offices as this that make up the indefinable atmosphere of home. To do it for those we love, rather than to find it done by servants, is to become a loyal part of that household, to be quickened in heart and mind as to the meaning of that home for us and ours.

I watched three little boys working for a week to build an Indian tepee — cutting branches, weaving in reeds brought from the swamp, and finally building their camp-fire with infinite pride. Would they have exchanged this rude work of their hands for the most perfect ready-made house?

It cannot be denied that the boys and girls of our time are not receiving to such a degree as is possible the advantage of training by means of homely household arts. Has this fact any connection with the widespread lack of a sense of responsibility? The head of a foundry laments it, it accounts for the turning away of young women from training schools for nurses where the standards are high. You hear of a frightful accident, and you know before the details come in that "someone has blundered;" some young man with the best intentions in the world has been unable in a moment of danger to rely on a safe accumulation of habit started in early youth. And when we hear that a noble man has done his duty, saving the lives or fortunes of thousands, nine times out of ten he has not been consciously more heroic than the blunderer, but his training has made his duty easy and natural.

We hear the impatient question: "But why the household arts for this training? Why these common tasks? They are doomed anyway by the trend of modern industrialism. Housework is all going out of the house." No; a great deal is going out from our city houses — all the larger, coarser processes, to which machinery and wholesale processes are applicable, as the laundry and the preparation of certain foods. And one of the pressing tasks now waiting for women is intelligently to hasten their outgoing, and to devise some means of following them and obtaining oversight and control for the protection of the family health and purse. But there are certain parts, as finer cookery and the lighter cleaning, that are so intimately bound up with the health and comfort of the family, and so require a refined and skilful touch, that they should be kept for the members of the family, for the education of the younger ones, and to keep the older ones in touch with the home. The mother-teacher should be enabled to select an environment that shall be full of suggestions of family and neighborhood dependence and helpfulness, full of object-lessons in applied science, with tasks to make deft the fingers and sure the eye. Every noble lesson of self-control and unselfishness, all sympathy with labor — what should be its dignity, and what is too often its hard lot — may be learned and expressed in these homely arts of life.

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THE OPPORTUNITY OF THE TEACHER.

A STATEMENT, which recently appeared in print, to the effect that the term "cooking" has given place in popular usage to "domestic science," conveys a world of meaning whose full force should be more generally understood, particularly by those who intend to become special teachers.

There are two points which should be made perfectly clear at the outset: first, cooking is not "domestic science," no matter what pretensions may be made by those who plead for its introduction into courses of study; second, teachers must understand the distinction between the two terms before undertaking to prepare themselves for the work.

The confusion in terms is the source of much misunderstanding where courses of study are under discussion, and to it may be traced much of the disagreement which exists as to the fitness of the subject for introduction into the school curriculum.

The number of taxpayers, and even of friends of the public-school system, is still large who are ready to assent to the notion that the preparation of food according to fixed recipes — in other words, "cooking" reduced to its simplest terms — is a subject which the schools should teach. It is their idea that little girls could thus be made much more useful at home, and would be better poor men's wives; and some even go so far as to look upon this kind of instruction as the only available way of solving the domestic-service problem. There is a correspondingly large number of women who, having failed in some vocation, or coming face to face suddenly with the necessity of earning their own livelihood, think that, by brushing up their memory of the way their mothers used to cook and by careful use of a cook-book, they will become competent teachers of "domestic science." But, no matter what the practical man of affairs may think of it or what the zealous charity worker may hope from it as a means of uplifting family life among the poor, the idea makes no real progress, and, in fact, in almost every community where it has

been put in practice, has utterly failed. Mothers
daughters cooking at home demand that the tim
be spent to better advantage. Mothers who loc
as a menial occupation — and there are, unfortu
them — are not willing to have their little girls de
fashion. Accordingly, the old-fashioned notion
mechanical process is extinct in so far as it touc
system of education. And with it must of necess
class of women who would enter upon the teachi
a makeshift and without any serious preliminar

It may be granted, then, that cooking in itsel
the schools; neither has carpentry. Cook and
must give up any claim that their technical skill
duties of a teacher.

Is the situation bettered by using the large
tentious term "domestic science"? By no means
is made in subject-matter and method. Carpent
no more entitled to recognition when it is termed
ing." There must be a more vital change tha
merely.

The question then arises: What is the real "d
in which so many good people are interested, a
much practical use and educational value are
easier to say what it is not than what it is. In
is not cooking, nor is it sewing. In the second p
some English authorities have assumed, such prin
and chemistry as may be applied or adapted to
and activities. In so far as the term may be jus
the combination of both ideas, or the applicatio
mental principles of different branches of scie
household activities, such as cooking and sewing.
all. Such instruction, to be worthy of any place
tem, must be given in such a way as to develop t
sible extent all of the child's powers and enable h
of himself and his environment. It is not enoug
shall be able to make light and palatable baking
nor, on the other hand, does it suffice for him

the expansion of gases or the reaction of chemicals. He must have his interest aroused in the larger aspects of his activity.

The meaning of these suggestions and the real end to be sought can be brought out more fully by describing briefly the qualifications, natural and acquired, which the teacher should possess, and whose importance she should keep constantly in mind.

It is difficult to draw a hard and fast line between those qualifications which are natural and those which are acquired, and it is not worth while to make the attempt. It may be clearly seen, however, that unless the teacher has certain physical, mental, and moral characteristics on which the special technical training can be based, her path to success will be a devious one, and she will often fail to reach the goal. A complete analysis is not necessary. A rapid survey of the most important traits will serve the present purpose.

First, there must be due appreciation of the value of order and system as time-savers. "A place for everything and everything in its place" suggests a method of activity which leads to quick results. Too often, unfortunately, it suggests also a method where the system rather than the result is given the first place. There must be an understanding of the distinction between the essential and the nonessential, the real and the trivial, in order and system. The teacher must show in all her activities that she works through system to result.

Closely allied with this trait is a fine sense of neatness and cleanliness. Here, too, it is not the thing itself that is the end in view, but the result which can be reached only by this means. Not only do these qualities contribute largely to the maintenance of physical health and sanitary conditions, but they are important factors in securing satisfactory results in the different household activities. The real significance of cleanliness has been learned by the managers of great industrial processes which have to do with the preparation of food supplies, but its function as a saver of time, money, and effort in the household is not yet fully appreciated. The teacher, then, should not attempt to do her work without at the same time maintaining high standards of cleanliness for herself and her pupil.

Another important quality, and one that is too frequently ignored, is the æsthetic sense. How often a thing fails to be adequately done because it has no element of beauty in it! And when we see a person with the gift of introducing a touch of beauty into the most commonplace activity, how the whole meaning of an act is suddenly revealed! This point needs special emphasis in these days when the so-called "practical" value of things has led to ignoring in large measure finer and higher tests. How to combine the useful with the beautiful is the problem which every teacher should be impelled by her own personal needs to help solve.

Manual dexterity, or facility in the use of the hands, is a quality which must be acquired, if it is not natural. Every motion made by the teacher should serve a definite end. The child should see that the body can be the skilful servant of the mind. Aimless movements and nervous gestures are as much out of place as awkwardness. Many a kitchen is wrecked on the Scylla of clumsiness, but the Charybdis of ineffective stir and pottering is almost as dangerous.

Another trait, or possibly it should be called an attitude of mind, which is of importance, is joy in doing. Mastery over the natural world, bending natural forces to the accomplishment of a purpose, power of self-expression through work — these are motives which lighten drudgery and give little place for the "menial" service, even if they do not make them entirely vanish. The teacher who is not willing to turn her hand to anything, who must have a subordinate to wash up the dishes or scrub the sinks because it is beneath her dignity to do it, fails to enter upon her task in the right spirit. Unless her pupils see that she has help merely because of the pressure of her other work, she will also fail to teach that lesson which nearly every American child most needs, and often misses, in home life — respect for honest work.

These traits, while more or less a gift of nature, may be largely cultivated and developed. The teacher should watch herself and supplement any natural deficiency by conscientious training.

Another desirable trait is the domestic instinct, taken in its large sense. This is a fondness for the arts which contribute to the welfare of the family, a sense of satisfaction in the promotion of household comfort, a joy in realizing that the home is the center and source of the best influences of society. Domesticity is too often taken to mean a certain stupid and stupefying following of a round of household duties, a slavery to the inanimate world, a blindness to interests outside the home. When this is the case, it is not strange that it does not prove attractive to girls of brain power and executive ability, nor hold women of tried efficiency. The time has come when, in addition to the willingness to use the home as a channel for the expression of all the highest powers, there shall be study and attention given to the real significance of family and domestic life. The day has passed when a woman may be made to feel that if she uses a wornout stocking for a scrubbing cloth instead of darning it, or buys a loaf of bread instead of using the last of the limited store of strength to make it at home, she is guilty of undermining the foundations of human society.

This leads further to a study of the social, economic, and historic forces which affect the home and its place in society. It may be true that there is the possibility of becoming lost in vague generalities, and losing sight of the practical details which make up the daily round of domestic activity, just as it is possible to be so absorbed in the mechanical performance of household duties as to fail to see their significance and fulfil them with a sense of proportion or a right standard of values; but the latter is an error more frequently made, as well as a delusion often ranked as a virtue. There is very little danger that the teacher who is to bring the activities of the home into line with the general march of human progress will have too wide a knowledge of the lessons of history, the teachings of economics, or the programs of students of society.

Finally, the teacher must give herself the best possible training in those sciences which contribute to the sum of knowledge needed in the administration of the household or the control of its activities. Chemistry, physics, botany, physiology, bacteriology, are all sciences which find their highest and best expression in household life. No learning comes amiss. Many of the simplest processes of the household are still not fully understood, and the progressive teacher and housekeeper must keep herself in the closest possible touch with all the advances of science.

This survey of the needed qualifications of the teacher is not intended to strike terror into the hearts of all who are looking forward to entering this field of service, nor yet to induce those who have already started on their preparation to turn back. Its real purpose is far different. It should arouse fresh enthusiasm, new courage, and untiring effort to prove worthy of a work which offers such boundless opportunities for personal attainment and social service.

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THE RELATION OF LANGUAGE TO THE MOTOR PROCESSES.

THE child's receptive sensory experiences are much greater in number than his motor attitudes. The numerous elements of his environment pour in upon him through his senses; he is attracted by people, objects, and activities innumerable, but his intimate relations with these through direct participation in their qualities and activities are limited.

His first motor adjustments are formed in response to his mother's care, and in endeavoring to manipulate playthings and food. With these he feels an intimacy gained chiefly through tactual and muscular adjustment. Mother is to him a presence which in its movements and touch calls from him those bodily attitudes and feelings which harmonize with his need of loving, protecting care. The ball is more a thing which his fingers curve around, which yields to pressure, which causes his eyes to move up and down as it bounces, or to follow as it rolls, than an objective thing of color or mass. Thus it happens that, as the ever-varying elements of his environment continually assail him through his senses, he tends to react to all of these through his few acquired motor adjustments. He gathers into a class or concept many things which upon closer relationship he finds call from him motor attitudes different from those through which he felt he understood them. The apple is a ball until his active acquaintance with it calls into being new sensations, new motor adjustments. The child's first words, therefore, stand for vague concepts, but later, as he discovers that all the elements of his concept do not assimilate with his motor attitude, that the apple does not bounce when thrown on the floor, that it is not forthcoming in its fragrant sweetness when called for as ball, but that it calls forth from him new activities, his ideas of identity tend to become corrected, and objects possessing for him more of individuality detach themselves from his first concept. Through new motor adjustments he discriminates more and more clearly, discovering differences, particulars, as well as resemblances, generals, acquiring percepts out of concepts, each percept, however, forming the basis for a new concept. Ball no longer includes apples and oranges; these now have life-meaning to him through his active experience with their individual properties of color, odor, softness, sweetness, juiciness, and structure. Thus, as his motor attitudes become more numerous, his classes become more numerous, through constant motor testing they are continually subject to change and correction, until finally he finds that there are certain experiences, certain elements, which under all conditions call out from him the same reactions. This sameness of motor feeling is the test of identity, and objects calling it forth are to him identical and form a true concept.

Language then registers or formulates in thought these motor attitudes, words increasing, as classes increase, by individuals separating from classes, and in turn becoming the bases for new classes. And only in so far as words may be interpreted through life-experience are they available as forms of expression through which to impart or acquire thought.

Dr. Dewey, in *The Primary-Education Fetich*, warns against the "isolation of material found in books from the material which the child experiences in life itself—the forcing of the former upon the child before he has well organized powers of dealing with the latter." Our analysis of the child's acquisition of words gives us an insight into the reasons for Dr. Dewey's position regarding too early reading or study from books.

The presentation of words to the child before he has had experience with the realities which the words stand for cannot fail to result in a vague or altogether wrong conception of them. Like his first experience with things, he will interpret words through wrong motor channels, or some one word which has motor significance for him will influence his thought to such an extent as to dominate the sentence, giving him a wrong construction; or words will become mere memory forms, with no motor link connecting them with life. This last state would seem to explain the condition of children who learn to read readily, but who lack appreciation of what they read; they acquire the power of remembering the forms of words, which have little or no life-content for them.

The acquisition of empty or vague words tends to develop satisfaction in trivial or fanciful interpretations, and a feeling of helplessness in dealing with content, which for the mind sensitive to meanings is rich with wholesome truth. And because the power of keen appreciation is lacking or defective, as Dr. Dewey states, there is a "tendency to elevate the sensational and transiently interesting above the valuable and permanent." Reading degenerates into a habit of passively viewing trains of images and situations, which, being sedative in nature, do not tend to inspire thought, do not arouse the mind to a questioning attitude concerning true ideas of life.

In line with the analysis of the acquisition of meaning in words, one concludes that much oral expression regarding things of actual experience in the child's life will develop in him a feeling for the meaning of words — words which, when heard or uttered, will tingle with feeling of actual life-relations — a condition of appreciation attained only through having lived the experience or state which the word expresses.

Fruitful of such results are the free discussions arising from planting seeds, from watching their growth, participating in their delights of flower or fruit, and investigating their methods of perpetuation. Not less inspiring to thought and talk are the hours devoted to contriving and constructing objects of use and interest to the children. The consultations over devices for overcoming difficulties, or the plans formed for enjoying the finished product, necessitate an oral expression born of the needs and pleasures of co-operation.

The improved conditions in our primary grades where the little children are no longer doomed to writing, numbers, and silence, are encouraging, but are we not even yet too prone to think that the book is the all-important factor in school education, and the number of pages mastered at an early date the mark of real progress? Should we not afford opportunity for more varied self-activity and thought, as it evolves in games, in study of nature, in construction of objects and in social intercourse?

It seems reasonable to think that after a large experience in such oral expression, where language is ever the utterance of truths fraught with life-experience, the child would easily and naturally turn to written language, literature suited to his experience, and, through a well-established habit of expressing thought, in turn appropriate the thought as thus presented.

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NEURO-MUSCULAR EDUCATION OR DEVELOPMENT.

It was while serving the Children's Aid Society of Chicago in the capacity of superintendent and caring for little waifs that my attention was called to the necessity of some kind of physical development for backward babies and children, and while working out a system of mild exercise for these defective children I conceived the idea of neuro-muscular education or development.

Commencing with a baby, say, six months old, and continuing through all those years when the child plays around the house, before it is old enough to go to school and before the brain is taxed by any mental effort, a mild but effective course of exercise can be given to a child that will develop its nervous and muscular systems, and give it mental strength and endurance.

In neuro-muscular education or development there are certain principles involved:

1. *The principle of sequence.*— Neuro-muscular education is a developmental process of infancy and childhood merging into the physical training of youth and young manhood. While the activities of childhood lead to the actual growth and development of the body and brain, the activities of the adult serve only to maintain the brain and muscles in a healthy condition. It thus becomes evident that the problem of the order of certain exercises or the sequence of activities is a matter of fundamental importance to the welfare of the individual.

2. *The principle of reciprocity.*— There exists between the nervous and muscular development a reciprocal relation; that is, there can be no muscular development without a corresponding development of the nervous system, nor can there be a well-balanced development of the nervous system without a development of the muscular system. The natural activity of the infant or child involves the exercise of both muscles and brain. The muscles develop in size and strength because of this exercise, and

the brain cells develop in size and precision of action while guiding the muscles. Thus the brain and the muscles of the child develop together, each helping the other. The muscular and nervous system are interdependent. Muscular activity is always accompanied by activity in the nerve centers of the brain and spinal cord. Through this reciprocal influence of muscular activity, large areas of the gray matter of the brain are developed in infancy and early childhood. Unless developed through muscular activity, they remain undeveloped; and unless developed in childhood, their growth is difficult and imperfect. Hence the necessity of allowing to little children that exercise which nature has provided for them in the early instincts of activity.

These natural instincts are a safe guide in directing and providing for this exercise—as to when to take exercise, and also as to when to refrain from exercise, thus avoiding overtraining. Nature has given to all children the instincts of activity; and after many experiments I have come to the conclusion that the only practical way of giving neuro-muscular education to an infant is by utilizing its instincts of activity. To do this I provide suitable environment and attractive apparatus, and allow the child to be wholly governed by its natural instincts and inclinations in the taking of exercise and in refraining from exercise. By this plan I have found that overtraining can be avoided and effective exercise given with perfect safety, and satisfactory growth and development may be secured for all little children. My plans are not for a select few of the stronger children to be crowded forward into phenomenal development of doubtful value, but neuro-muscular education should help all of the weak ones, as well as the strong ones, and bring them all up to a common standard of excellence in mental and physical development.

Imitation is one of the strongest instincts in a year-old baby, and it may be utilized as an incentive to stimulate the initiative instincts of activity in a backward baby. If your baby is backward about creeping or talking, it can easily be cured by bringing in your neighbor's baby of the same age or a little younger (not older, for children learn more readily from those younger than from those older), and let them play together on the floor or in the cradle. Repeat the visit often, if necessary. After the little visitor has gone away, your baby will remember and try to imitate all of the visiting baby's activities. Companionship of equals is sometimes essential to awaken a backward baby, and companionship is of itself a good brain-developer for a baby, and a series of baby parties is the simplest and most natural means of development.

ORDER OF PHYSICAL GROWTH IN CHILDREN.

A six-months' baby carries to its mouth everything it gets in its hands, not to eat it, but to test it, and these early voluntary movements of a baby's hands should be cultivated by giving it something to hold in its hands and play with. To develop its hand- and finger-grip, it can be taught to reach out its hands for what it sees by suspending bright-colored toys over it in its crib.

A six months' baby should be dressed in short clothes to allow it to flex the hips and kick freely. Flexing of the shoulders and hips is quite necessary to a baby's health and growth. Kicking can be cultivated by stretching a newspaper across the top of the crib within reach of the baby's feet. It will soon learn to kick this paper to hear it rattle. Pulling off its stockings involves the combined exercise of its hands and legs, and it develops the muscles of shoulders, back, and hips. To encourage it, sew a bright-colored button to the toe of each stocking for the baby to play with, having pinned these garments securely to the clothing.

To arouse a sluggish baby, sew a small sleigh bell to the toe of each stocking, and place under the heels a pad to prevent bruising when it kicks the floor. Take care not to leave the bells on too long — not longer than half an hour at the most — for the pliable muscles of a growing child are peculiarly liable to overtraining. If you find that the baby favors one foot more than the other, take off the bell on that side and leave the other one on for a longer time, to keep the development balanced. This exercise is simply to stimulate the child's instinctive activity. This is the basis of all early fundamental development both of brains and of muscle.

After wearing the bells for a few times, the baby will get strong enough to roll. *Rolling* on the floor is a baby's first effort in locomotion, and it is very important as a preparation for creeping. Lying on its stomach will strengthen its stomach muscles, and pressing on the floor with its hands will expand the chest and strengthen the breathing muscles. It will correct any posterior spinal curvature which the baby may have contracted while being carried in the nurse's arms, by giving the spine a counter-anterior bend. The rapidity with which a rolling baby develops the extensor muscles is almost beyond belief, for it takes only a few hours to bring them out.

The next step to be gained in a baby's development is the *sitting* position, and an active roller will soon be able to sit up on the floor. Do not prop the baby up with pillows, but leave it free to lie down when its back gets tired. Do not help it to rise to a sitting position, no matter how sweetly it may ask for assistance; you only retard its motor ability by helping it; but place it on a rug not too soft, and let it roll. It has muscles enough, and it will find a way to get up as soon as it makes the mental effort to control the muscles.

A sitting baby soon learns to creep. *Creeping* on the floor is nature's own contrivance to give neuro-muscular development to a baby. Every baby should be dressed in a creeping-apron, and be given a suitable place in which to creep, bright sunny rooms, well heated, and free from cold drafts over the floor.

The creeping age is the first great crisis in a baby's life. It is the time when three important physiological changes are affecting its health: it is being weaned, it is cutting its teeth, and its head is closing. Nature has provided the exercise of creeping to counteract the weakening influence of this trying period. Creeping brings into play all the muscles of the body except those of the feet. It aids digestion and gives physical endurance. It also conduces to sound, healthful sleep, and has thereby a tonic effect upon the brain. A baby should not be weaned until it has learned to creep; and if it does not of itself learn to creep, it can be taught to creep by seeing another baby creep.

Hitching babies are backward babies, and a large percentage of them become feeble-minded. Hitching is a danger signal thrown out by nature that should not be disregarded. If it is caused by the child's being carried too much in the nurse's arms, it is not serious, and it may be cured by teaching the baby to creep before the brain closes. But if it is caused by retarded brain-development, and the brain closes early, the case is doubtful.

Stair-climbing is good exercise for a baby, if it is not overdone. It is especially good for a heavy-weight baby that is slow about learning to walk. All babies will climb the stairs, if given an opportunity to do so, as soon as they are able to stand upon their feet, and they will often give a scream of delight as they approach the stairs on all fours; but it is severe exercise, and they should not be urged beyond their own inclination.

The summer baby goes through his gymnastics well enough on the floor, which is the appropriate place for him to roll, creep, stand, and walk. In winter, however, babies are liable to take hard colds when allowed to play upon the floor. I have often lain down upon the floor with my baby just to test the cold draft of air that comes in every time an outside door is opened and follows along the floor, and I know that the cold floor is a dangerous place for a baby in the winter season. As a consequence, the winter babies are held in the arms of their elders altogether too much. To carry a baby about continually, or to confine its hands and feet in heavy wraps, is very undesirable; and to keep it sitting in a high chair for a long stretch of time is highly injurious. When thus deprived of the freedom of movements necessary to its growth, it loses perceptibly power of initiation action. As a result of these conditions, the development of winter babies is often seriously retarded.

Especially to meet the wants of the winter babies, I designed and built the "cradle car." It is a crib on wheels — a bed by night and a car by day. It is a miniature portable playroom especially suited for cradle athletics. It gives the baby a suitable place in cold weather for rolling, creeping, clinging by the hands, and climbing up to a standing position. A lively creeping baby will soon be able to pull itself up to its knees and then to a standing position.

Clinging by the hands is another of nature's contrivances to give neuro-muscular education to a baby. The hand-grip of a baby is the best index of the normal condition of its brain, and any exercise that will develop the hand- and finger-grip will also develop the sensorial faculties of the brain, such as susceptibility to receive and retain impressions. Therefore, the more the baby clings to the sides of the car without fatigue, the better; and it should not be assisted, but be allowed to climb up of its own initiative. The muscles will do their part as soon as the brain is ready to guide and direct them.

Next in the order of physical growth is *climbing*. The baby whose hands have been developed by clinging will soon begin to climb upon the chairs and other articles of furniture about the house, and it needs a chair it can climb into and out of in safety. When my baby was fifteen months old, I fixed her high chair so she could climb into it at meal times. She took as naturally to it as to creeping and clinging, and used it at every meal, climbing into it and out of it without assistance. It developed the flexor and gripping muscles of the forearm, and the lifting and pushing muscles of the shoulder and back in such a way as to give her an erect carriage. It developed the muscles of the chest, rounded out her ribs all the way from her breastbone to her backbone, and increased her lungs in size and strength. Finally, it developed the muscles of the back, hips, thighs, and legs. High-chair climbing increases the digestive powers of the child, so it can assimilate a larger percentage of the food it eats. It also stimulates respiration and circulation. By this means the brain is nourished by more abundant and richer blood, and it is developed and strengthened so that it is better prepared to receive the impressions and sensations that come to it through the senses; and a more vigorous mind is the result. The brightening of the child's intellect is quite noticeable after using the chair for a few months.

To make the high-chair climbing more effective, I made a chair toboggan slide of it for use in rainy weather, when children are confined to the house and miss their out-of-door exercises and the exhilarating effects of the sunshine. I attached an ironing-board to the front of the chair and waxed the upper side with floor wax, and the children climb up and through the chair and slide down. The pleasure of sliding down induces them to climb up many times, and the continuous climbing gives them the needed exercise. The toboggan is set up in the living-room, where the child can have the company of its mother when it takes the exercise; and, when not in use, the slide-board may be hung up in the closet and the high chair returned to the dining-room.

Next in order of physical growth I have found that *swinging* offers many opportunities for juvenile gymnastics. With that end in view, I made a single-pole swing to hang in a doorway. Such a swing is adapted to the use of a five-year-old child to exercise upon when it cannot play out-of-doors. The inconvenience of having it in the doorway is only temporary, for it is easily disconnected and removed when not in use. Standing on the footboard, one or two children can use it and find both exercise and amusement. It proved to be a good all-around developer. It gives the little boys an elastic step and manly tread. It is good for girls also. It gives them a good poise upon their feet and a graceful gait in walking. And, best of all, it continues to develop the hand-grip of the children, with a corresponding development of the brain and central nervous system.

My own daughter was undersized at one year of age, and quite frail and delicate. After six years of neuro-muscular education she is a little amazon, and she leads in her class in school.

Fundamental physical culture or neuro-muscular education is good for all children, the strong ones as well as the weak ones. The culture of a child's body and brain is most important, for it is the foundation upon which all growth and development is built in after-years, and nature has provided for this in the early instincts of activity in the child. It gives health to the invalid child, bodily strength to the delicate child, acuteness to the dull child, a forward impulse to the backward child, and keenness and power of initiative to the indifferent child.

P. F. CHASE.

BERWYN, ILL.

BOOK REVIEWS.

Education as Adjustment. By M. V. O'Shea. New York: Longmans, Green & Co. Pp. 317. $1.50.

In this volume by Professor O'Shea we have a distinct contribution to the philosophy of education. It is both critical and constructive. Professor O'Shea considers in Part I the data for a science of education. He passes in critical review those principles which he terms "the survival of the fittest in education." He finds that much which we think decidedly modern is very ancient in origin. He says: "Some at least of the principles which were announced by Plato have been repeated by every eminent educator since his time. . . . . Moreover, scientific experiment . . . . is corroborating a considerable part of the small body of doctrines that have come up to us unchanged through the storm and stress of the ages." He believes that the great experiments made by nations in civilization and in educational procedure furnish many invaluable data for the guidance of the educationist today. Biography is rich in suggestion, setting forth the influences which have molded the lives of individuals. Recent experiments in education are weighed and found decidedly not wanting in scientific data for education. Such classical studies as those of Cattell, Goldscheider and Mueller, Quantz, Bryan and Harter, Shinn, Hall, Lukens, Dewey, Sully, *et al.*, are instanced. These experiments relate to processes involved in reading, learning language, drawing, etc. Several experimental schools of education are noted. He has great faith in the child-study movement. Finally the "evolutionary principle has rendered great service to education. . . . . It has pointed out conclusively, for most men at any rate, that the requisite for successful living is adjustment to the environing world of people and of nature."

In Part II he considers the various aims of education, as suggested by psychology, neurology, sociology, ethics, the doctrine of utility, and of formal discipline. Abstract formal discipline cannot be the end of education, since training is special in its effects. There must be continuous adjustment of the individual to his particular environment. Primarily this is a biological process, but among human beings it becomes a social adjustment. Education in the large sense involves biological adaptation, though in the narrower and more usual sense it implies only the conscious processes of adjustment, and these are social. The supreme end of education, then, is social adjustment, and the school the institution *par excellence* where this is accomplished.

In Part III some of the methods of attaining adjustment are studied. This is mainly exemplified through methods of intellectual acquisition, though the social environment in its relations is considered. Professor O'Shea disclaims the desirability of dissecting and cataloguing the powers of the mind, or even analytically describing them for a study of educative adjustments. Mind is treated as dynamic and functional rather than as static. Hence it is easy to see that we should not expect a discussion of "the perception," "memory," "the imagination," etc. We are quite prepared for such chapters as "The Natural History of Certain Typical Senses," "The Retention and Abridgment of Experiences," "Apperception as the Essential Process," etc. The doctrine of formal discipline comes in for a most searching treatment. Professor O'Shea has many times uttered some telling arguments in denunciation of its false assumptions, but in this book he has dealt the most forceful blow — its death-blow, we hope.

This book is doubtless the nearest approach to a treatise on the ***science of education*** that has been produced. We have had many on ***theories of education.*** It is distinctly of college grade, and not at all akin to those numberless books which deal in platitudes, or those others saturated with scholastic or Hegelian philosophy, and whose greatest points of strength are their ultra-refined webs of logic spun from arm-chair philosophy. The literary tone of the book is excellent.

Frederick E. Bolton.

The State University of Iowa.

INDEX TO VOLUME IV.

ARTICLES.

PAGE
Abel, Mary H., The Value of Housework in Teaching Responsibility - - 724
Adams, Elizabeth K., Some Fundamentals in the Teaching of Written Composition - - 391
Æsthetic Development of the Problems of the Future - - 495
Aid in Learning a Foreign Language, The Dramatic Sense as an - - 579
Arithmetic, Modernized - - 91
Arrested Development, A Study in - - 387
Arrested Development in the Study of Language - - 412
Art and Manual Training in the High School - - 507
Art at School Festivals - - 510
Art, Elementary, Teaching in the Laboratory School, II - - 9
Arts and Crafts in Education, Social Need for - - 526
Assignment to the First Grade - - 385
Astro-Geography for Children - - 290
Astro-Geography in the Grades - - 283

Baber, Zonia, The Scope of Geography - - 257
Basis, For a Parents' Association, The - - 337
Basketry - - 116
Bawden, H. Heath, The Social Character of Consciousness and its Bearing on Education - - 366
Beginning of Formal Language Work, The - - 51
Blaine, Anita M., The Dramatic in Education - - 554
Bolton, Review of O'Shea, Education as Adjustment - - 746
Books Received - - 64, 128, 192, 335, 538
Bookwalter, Mary L., Social Needs for Arts and Crafts in Education - - 526
Brayton, Laura L., Arrested Development in the Study of Language - - 412
Breck, Emma J., The Development of a Vocabulary - - 240
Butler, Annette, Nature-Study and Manual Training - - 707

Camp, Katharine B., Astro-Geography for Children - - 290
  Elementary Science Teaching in the Laboratory School, II - - 1
  Primitive History in the Primary Grades of the Laboratory School - - 79
  The Place of General Ideas as Controlling Factors - - 377
Charters, W. W., History as an Instrument of Experience - - 489
  Review of Brigham, Geographic Influences in American History - - 252
Chase, P. F., Neuro-Muscular Education or Development - - 739
Chemistry in the Cooking School, Some Uses of - - 693
Children, Sight-Reading for Normal and Subnormal - - 629
Children, Social Needs of - - 205
Children, The Woodman and the Goblins - - 598
Chubb, Percival, Function of the Festival in School Life - - 559
Civics in the Elementary School - - 471
Clay-Modeling, Relation of Nature-Study to - - 705
Collaboration of History and Geography - - 461
Composition, Fundamentals in the Teaching of Written - - 391
Conditions of Expression in the Schoolroom, Some - - 168
Congress and School Exhibition, First Hellenic Educational, at Athens, 1904 435
Consciousness, Social Character of, and its Bearing on Education - - 366

PAGE
Cooke, F. J., Nature-Study and Science Work in the Francis W. Parker School 129
Cooking School, Some Uses of Chemistry in the 693
Correlation of Drawing and Manual Training 107
Courses in Teaching of Natural Science in the College of Education 102
Covington, Anette, Drawing and Painting in the Elementary Grades 514
Crowe, Mary E., Review of Kemp, History for Graded and District Schools 440
Curriculum, History in the Organization of the 454
Cushman, Lillian, Æsthetic Development of the Problems of the Future 495
  Elementary Art Teaching in the Laboratory School, II 9

Democracy in Education 193
Development of a Vocabulary, The 240
Development of the School Museum 319
Dewey, John, Democracy in Education 193
  Significance of the School of Education 441
Dopp, Katharine E., Relation of History and Industry 477
  Review of Sinclair: The Possibility of a Science of Education 250
  Some Steps in the Evolution of Social Occupations, VI 73
Drama and Oratory in the School 601
Dramatic in Education, The 554
Dramatic Play in the Kindergarten 588
Dramatic Representation in the Primary Grades 566
Dramatic Sense as an Aid in Learning a Foreign Language 579
Drawing and Manual Training, The Correlation of 107
Drawing and Painting in Connection with Nature-Study 701
Drawing and Painting in the Elementary Grades 514
Duncan, John, The Woodman and the Goblins 594

Earth is the Lord's, The 185
Education, Democracy in 193
Education or Development, Neuro-Muscular 739
Education, The Dramatic in 554
Education through Music 623
Educational Side of the Parents' Association of the Laboratory School 532
Educational Value of Fairy-Stories and Myths 161
Elementary and Secondary Education, Saving Time in 65
Elementary Art Teaching in the Laboratory School 9
Elementary Field Work, I 312
Elementary Grades, Drawing and Painting in the 514
Elementary History Teaching in the Laboratory School, II 34
Elementary Music Teaching in the Laboratory School, II 16
Elementary School, Household Arts in the 34
Elementary School, Physics in the 688
Elementary School, Political History in the 466
Elementary Science Teaching in the Laboratory School, II 1
English, Figurative, and Introspection 415
English Grammar, Fundamental Concepts of 407
English, Habit and Elementary Work in 638
Environment, The Human Response to the Physical 271
Evolution of Social Occupations, Some Steps in, VI 73
Examining and Licensing of Teachers, Shall They Set a Model in Pedagogy? 189
Experiment in Textiles, An 653
Expression in the Schoolroom, Some Conditions of 168

Fairy-Stories and Myths, The Educational Value of 161
Farley, A. A., Fundamental Concepts of English Grammar 407
Farnsworth, C. H., Education through Music 623
Festival in School Life, The Function of the 559
Feuling, Alice D., Some Uses of Chemistry in the Cooking School 693

PAGE
Field Work, Elementary, I - - - 312
Field Work — The Chicago Area - - - 679
Fifth-Grade Schoolroom, A - - - 178
First Grade, Assignment to the - - - 385
Fleming, Martha, Must it Be a Lost Art? - - - 541
Foreign Languages in the Elementary School, Notes on - - - 61
Fourth-Grade Children, Play of Ulysses - - - 571
Fundamental Concepts of English Grammar - - - 407
Fundamentals in the Teaching of Written Composition, Some - - - 391

Gastman, E. A., Inefficient Teachers - - - 229
General Exercises - - - 120
General Ideas as Controlling Factors, The Place of - - - 377
Geography and History, Collaboration of - - - 461
Geography, Astro-, for Children - - - 290
Geography, Astro-, in the Grades - - - 283
Geography, Graphic Representation in - - - 296
Geography, The Scope of - - - 257
Gillet, H. O., Physics in the Elementary School - - - 688
Goode, J. Paul, The Human Response to the Physical Environment - - - 271
Gore, W. C., Review of Judd, Genetic Psychology for Teachers - - - 254

Habit and Elementary Work in English - - - 638
Hall, James, Art at School Festivals - - - 510
Hall, Jennie, A Word about Local History - - - 483
  Some Phases of Dramatic Representation in the Primary Grades - - - 566
Handicraft in the Public Schools - - - 501
Harding, Hattie H., The Social Needs of Children - - - 205
Harmer, Althea, Basketry - - - 116
  Textile Work Connected with American Colonial History - - - 661
History and Geography, Collaboration of - - - 461
History and Industry, Relation of - - - 477
History as an Instrument of Experience - - - 489
History in the Curriculum, Organization of - - - 454
History, Local, A Word about - - - 483
History, Political, in the Elementary School - - - 466
History Teaching, Elementary, in the Laboratory School, II - - - 34
History of the Vernacular in Education, I, II - - - 418, 642
Hollister, A., Relation of Nature-Study to Clay-Modeling - - - 705
Hough, Theodore, What Training in Physiology and Hygiene May We Reasonably Expect of the Public Schools? - - - 132
Household Arts in the Elementary School, The - - - 716
Housework in Teaching Responsibility, The Value of - - - 724
Howe, George, Review of: Meyer-Brook, Grammar School Arithmetic - - - 537
  Belfield-Brook, The Rational Elementary Arithmetic - - - 537
Hygiene, Some Problems in - - - 720

Inconspicuous Child, A Plea for the - - - 347
Industry and History, The Relation of - - - 477
Inefficient Teachers - - - 229
Institute, Problems of the - - - 232
Introspection and Figurative English - - - 415

Jackman, W. S., Courses in the Teaching of Natural Science in the College of Education - - - 102
  Nature-Study, True to Life - - - 145
  True Nature-Study - - - 673
Johnston, Lucia, Review of Cooley-Webster, Language Lessons from Literature - - - 439

Kern, Mary Root, Elementary Music Teaching in the Laboratory School, II 16
  Sight-Reading for Normal and Subnormal Children - - - 629
Kern, Paul O., Notes on Foreign Languages in the Elementary School - - - 61

PAGE
Vernacular in Education, The History of the - - - - - - 418, 642
Vocabulary, The Development of - - - - - - - - - - 240
Voice, The Preservation of the - - - - - - - - - - - 613
WATERMAN, RICHARD, The Use of Traveling Museums in the Public Schools of Chicago - - - - - - - - - - - - - - 711
What Ate the Mullein? - - - - - - - - - - - - - 695
Where to Procure Pictures - - - - - - - - - - - - 309
WILLIAMS, FREDERICK N., Manual Training and Art in the High School - 507
WOLFE, L. E., Shall the Examining and Licensing of Teachers Set a Model in Pedagogy? - - - - - - - - - - - - - - 189
Woodman and the Goblins, The - - - - - - - - - - 594, 598
WYGANT, ELSIE A., A Series of Sixth-Grade Lessons - - - - - - 325
YOUNG, ELLA FLAGG, Re-examination of Teachers - - - - - - - 247
    Saving Time in Elementary and Secondary Education - - - - 65

THE HILL OF TARIK IN AMERICA,

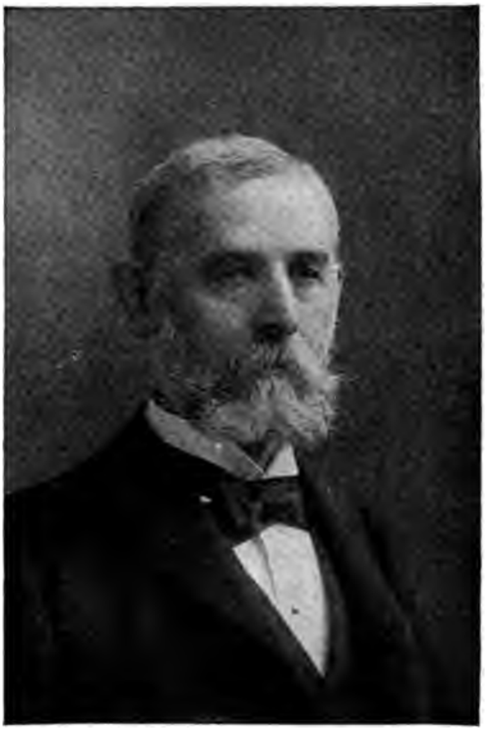
By Herbert S. Houston.

(With Photographic Illustrations by Arthur Hewitt.)

From Madeira the ship's course was straight for the Mediterranean. Among those on board, bound for the Orient, were a New York publisher and a bright boy from the West, eager for all the new sights of the Old World ahead. As the land breezes caught the pennant at the masthead, the boy scanned the eastern horizon and he kept it up for hours.

"What are you looking for so hard?" inquired the publisher.

"Oh, I want to see that big sign of the Prudential on Gibraltar," and the boy still peered into the east. When at last the great rock, the Hill of Tarik the Saracen, lifted its head above the ocean, the boy searched in vain for the sign he was sure he would see. For him, as for all other Americans who read the magazines, the Prudential was inseparably associated with Gibraltar. And this association has made the rock and the insurance company almost interchangeable terms, simply because each suggested strength. But the American Gibraltar achieved its strength in a few years by dauntless human endeavor, while the slow accretions of ages gave strength to its namesake, the mighty Hill of Tarik.



U. S. SENATOR JOHN F. DRYDEN,
President of the Prudential.

Ten years after the close of the Civil War—a period so recent that its history has scarcely been written—the Prudential was established in Newark. As if foreknowing the great rock to which it would grow, it began its foundation in a basement office. It was like the beginning of the New York *Herald* by Bennett, the elder, in a basement on Ann Street. But it would be an idle play with words to make a basement office the real foundation of the Prudential. It was something much deeper down than that—nothing else than the bed-rock American principle of democracy. The Prudential applied the democratic principle to life insurance. As Senator Dryden, of New Jersey, the founder of the company, has said: "Life insurance is of the most value when most widely distributed. The Prudential and the companies like it are cultivating broadly and soundly among the masses the idea of life-insurance protection. To them is being carried the gospel of self-help, protection, and a higher life."

HOME OFFICES, PRUDENTIAL INSURANCE CO., NEWARK, N. J.

And what has been the result of the democratic American principle worked out in life insurance? In 1875 the first policy was written in the Prudential. At the end of 1903 there were 5,447,307 policies in force on the books of the company, representing nearly a billion dollars. The assets in 1876 were $2,232, while twenty-seven years later, in 1903, they were more than 30,000 times greater, or $72,712,435.44, the liabilities at the same time being $62,578,410.81. This is a record of growth that is without precedent in insurance and that is hard to match in the whole range of industry. The rise of the Prudential to greatness reads like a romance in big figures, but, in fact, it is a record of business expansion that has been as natural as the growth of an oak. To say that, in ten years, the company's income grew from something more than $9,000,000 a year to more than $39,000,000 last year is amazing as a general statement, but when made in relation to the broad principles on which that growth has been based, there is no mystery about it; but there is in it, from the day when the principles were planted in Newark until these great harvest days, the genuine American spirit of achievement, strong, hopeful, and expansive.

THE HILL OF TARIK IN AMERICA

The Prudential Insurance Company of America is a national institution. It was founded to provide insurance for the American people on the broadest possible basis, consistent with strength and safety.

Just as Grant and Lee organized their armies, or as Kouropatkin and Yamagata plan their campaigns in Asia, so does the Prudential work out its national insurance propaganda. The company's organization is essentially military. It is a wonderful combination of big grasp and outlook, with the most painstaking thoroughness and system in details. And, as is always the case in every organization that throbs throughout with intelligent energy, there is a man at the center of it. This man has a constructive imagination lighting up a New England brain. To business prudence there is added the large vision which sweeps the horizon for opportunity. Naturally, to such a vision the application of the democratic idea to insurance was an opportunity of the first magnitude. When seen, it was grasped and developed. The Prudential was founded. Year after year the company added to its number of policy-holders. And all the time the company was working out a more liberal basis for its democratic idea. But each time a more liberal policy was offered, it was fully tested. "Progress with strength" is the way President Dryden describes the company's principle of growth—the results, clearly, of vision and prudence. At the end of ten years of this method of growth, the company reached the point where, it was believed, insurance could be safely offered for any amount with premiums payable on any plan, either in weekly instalments or at longer periods. Within the five years, 1886 to 1890 inclusive, the company's assets increased nearly fivefold, from $1,040,816 to $5,084,895, and the amount of insurance in force from $40,266,445 to $139,163,654.

ENTRANCE TO MAIN OFFICES.

The Prudential had found itself. The idea of democratic insurance had been fully tested and adjusted to the needs and conditions of the American people. Then, with a boldness which only large vision could have quickened, the plan was formed to make the Prudential's idea known in every section of the country. Gibraltar was chosen as the symbol of the company's strength, and advertising—the telling of the Prudential idea to the people—was begun.

There is no place where one feels the greatness of the Prudential quite so much as in the vast granite piles which have been raised for the company's home buildings. They rise above the Jersey meadows as Gibraltar does above the sea, a convincing witness, surely, to the growth and to the strength of the Prudential. But they are not a cold, gray rock, but a living organism throbbing from vital contact with millions of policy-holders. There are now four of these great buildings, all occupied by the company.

Today the Prudential is paying over 300 claims a day, or about forty each working hour. On many policies settlement is made within a few hours by the superintendent of the district; on the large policies a report is sent immediately to the home office and settlement authorized by telegraph. And on over 45 per cent. of the claims more money is paid than the policy calls for. From the beginning the Prudential has followed lines of great liberality.

It would be interesting to describe the broad activities that hum in the great buildings at Newark, but they would more than require an entire article themselves. So, too, with the equipment and furnishing of the buildings which, in the way of complete adjustment to their particular work, are probably unequaled in the world. Thousands who go to the World's Fair at St. Louis will find in the Prudential's exhibit in the Palace of Education a fine model of all the buildings, and also the fullest data concerning life insurance that have ever been brought together.

But the last word about the Prudential is not told at any exposition. It is found in the 5,500,000 policies which form a stupendous exhibit on the value of life insurance in developing thrift, safe investment, and home protection in a nation. Of course, such an exhibit could never have been possible if the Prudential had not worked out safe policies that would meet the broad needs of the American people.

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From the Greek

SOZO—to preserve
ODONTES—the teeth

True to its name
it has ever been the
old reliable

Sozodont

[illegible]

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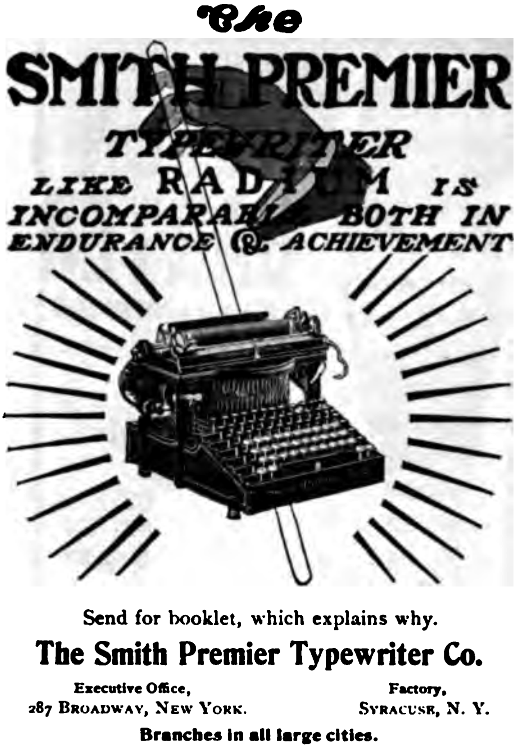
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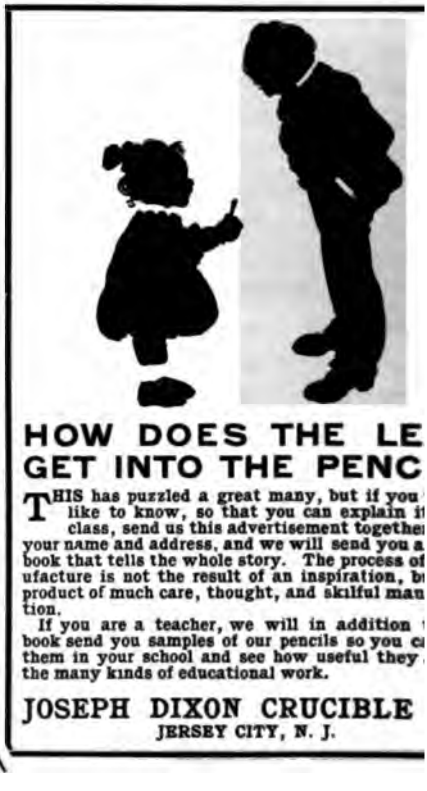
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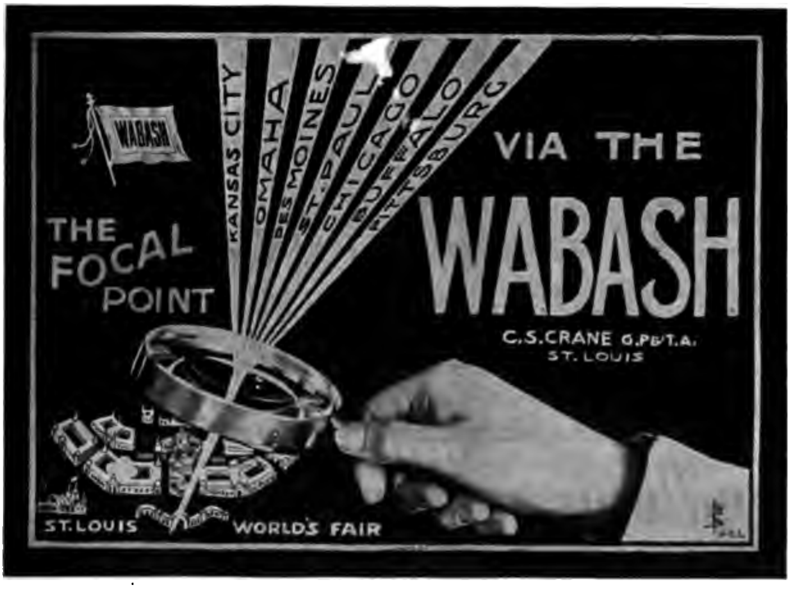

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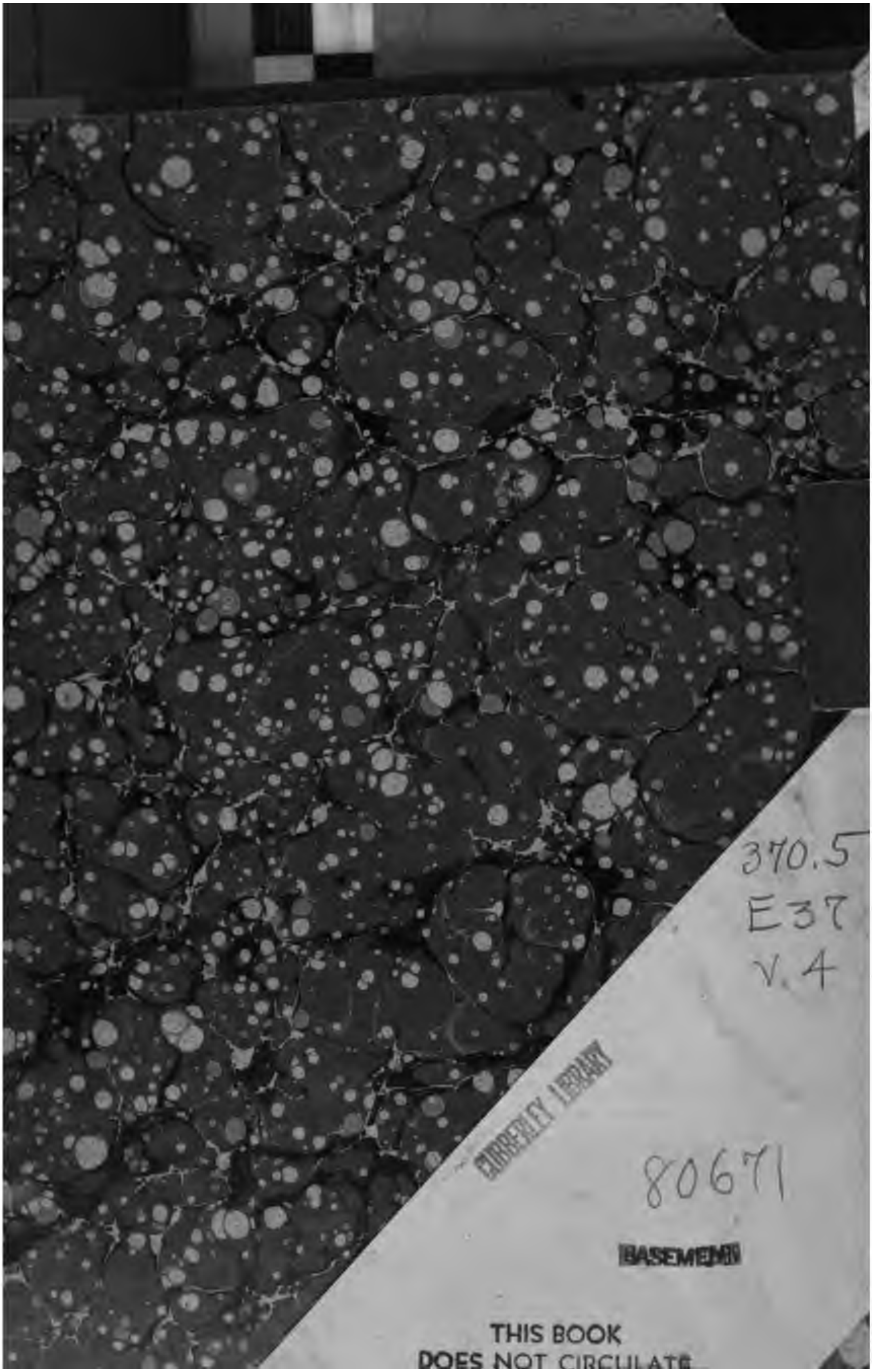

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